



# Spring 2001 Released Tests

(Supplemental Information)

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## Grade 5

*English: Reading/ Literature and Research*

*English: Writing*

*Mathematics*

*Science*

*Computer/Technology*

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# Introducing the Virginia Standards of Learning

## Grade 5 Assessment

One of the complete test forms from the Spring 2001 Standards of Learning administration is presented in the following pages. The intent of this released test is to provide parents and teachers additional information to accompany the Student Performance Report and/or the Parent Report.

The information accompanying each test question is broken into several components:

**Reporting Category:** Matches the score report and allows for identification of strengths and weaknesses indicated by student scores.

**Standard of Learning:** Presents the SOL used in developing the assessment question.

**Instruction:** Provides information for teachers to use as the SOL is incorporated into instruction.

**Parent Tip:** Provides strategies for parents to use in assisting their child.

The answer to each question can be found at the back of the booklet.

# E

nglish: Reading/Literature and Research Test

5  
GRADE

## RELEASED ▼ SELECTION

### Bones

- 1 From head to toe
- 2 You're a bundle of bones.
- 3 Unless, of course, you're a worm,
- 4 Or a slug,
- 5 Or a germ,
- 6 Or a bug who hides in a rug.
- 7 You're not shaped like a chicken,
- 8 Or a hippo,
- 9 Or an ape.
- 10 Your skeleton gives you a human shape.
- 11 Bones hold you up,
- 12 Bones are your frame.
- 13 Bones let you stand,
- 14 Each bone has a name.
- 15 Some bones are round,
- 16 And some are little.
- 17 Most bones are hard,
- 18 But also even brittle.
- 19 Some bones are hollow,
- 20 All bones can break.
- 21 So watch your step,
- 22 For goodness' sake!

# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Use Word Analysis Strategies

**A. Standard of Learning:** 4.3 The student will read and learn the meanings of unfamiliar words.

a) Use knowledge of word origins; synonyms, antonyms, and homonyms; and multiple meanings of words.

**Builds On:** Work with word origins increases in complexity throughout the study of Reading/Literature and Research.

**A**

1 In line 18, the word brittle means —

- A easy to bend
- B soft and white
- C long and strong
- D likely to break

**Instruction:** Provide students an opportunity to define a word based on its use in a poem.

**Reporting Category:** Understand a Variety of Printed Materials/Resource Materials

**B. Standard of Learning:** 4.9 The student will use information resources to research a topic.

b) Collect information, using the resources of the media center.

**Builds On:** Work with print resources continues throughout the study of Reading and Writing and increases in complexity.

**B**

2 In which section of the encyclopedia should you look to find information about your bones?

- F B for bundle
- G C for children
- H H for head
- J S for skeleton

**Instruction:** Provide students an opportunity to determine which section of an encyclopedia would provide the information on a given topic.

## Parent Tip A:

*Have your child define a word that appears in a poem you are reading with him/her or he/she is reading.*

## Parent Tip B:

*Have your child identify which section of an encyclopedia would provide the information about a topic in a story you are reading to him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

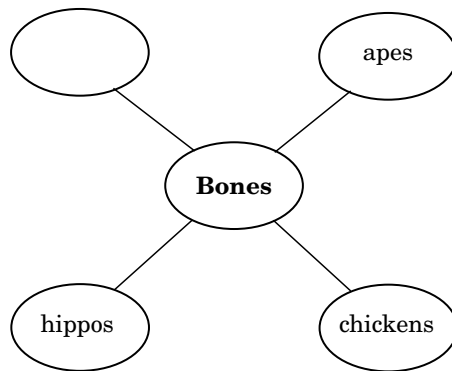
**A. Standard of Learning:** 5.6 The student will demonstrate comprehension of a variety of literary forms.

a) Use text organizers such as type, headings, and graphics to predict and categorize information in informational texts.

**Builds On:** Work with using text organizers continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**3** The chart shows an important idea in the poem.



Which word belongs in the empty circle?

- A humans
- B worms
- C slugs
- D germs

## Parent Tip A:

Help your child develop a text organizer for a poem you have read with him/her or he/she has read.

**Instruction:** Provide students an opportunity to analyze a text organizer to identify which entry should be added.



# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 5.6 The student will demonstrate comprehension of a variety of literary forms.

b) Locate information to support opinions, predictions, and conclusions.

**Builds On:** Work with locating information to support an idea continues throughout the study of Reading/Literature and Research increases in complexity.

**A**

**4 The idea that bones give you a shape can be supported by the fact that they —**

- F** are round
- G** can break
- H** have a name
- J** are your frame

**Instruction:** Provide students an opportunity to find information from a passage to support a given idea.

## Parent Tip A:

*Have your child find support for an idea from a story you are reading with him/her or he/she is reading.*

**Reporting Category:** Understand Elements of Literature

**B. Standard of Learning:** 4.4 The student will read fiction and nonfiction, including biographies and historical fiction.

a) Explain the author's purpose.

**Builds On:** Work with explaining the author's purpose based on evidence from a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

**5 This poem both entertains and informs you because it —**

- A** is humorous but gives factual information
- B** persuades you to take care of your bones
- C** tells about something that is real
- D** is short and easy to read

**Instruction:** Provide students an opportunity to explain how the author of a story entertains and informs the reader based on evidence from the story.

## Parent Tip B:

*Have your child describe how the author of the story you are reading with him/her entertains and informs the reader.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 4.6 The student will read a variety of poetry.

a) Describe the rhyme scheme (approximate, end, and internal).

**Builds On:** Work with the rhyme scheme of poetry continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

6 Which line contains two words that rhyme?

- F 3
- G 6
- H 7
- J 10

7 Which rhyme scheme is used in lines 19 through 22 of this poem?

- A abab
- B aabb
- C abcb
- D abca

**Instruction:** Provide students an opportunity to determine the rhyme scheme of a poem; provide students an opportunity to identify words that rhyme.

## Parent Tip A:

*Have your child determine the rhyme scheme and identify rhyming words in a poem you are reading with him/her or he/she is reading.*

**B. Standard of Learning:** 4.6 The student will read a variety of poetry.

b) Identify the sensory words used and their effect on the reader.

**Builds On:** Work with sensory words in poetry continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

8 In this poem, the words “round,” “hollow,” and “little” are words that —

- F describe bones
- G rhyme
- H name bones
- J tell how bones feel

**Instruction:** Provide students an opportunity to describe what sensory effect is created by certain phrases or words as they read.

## Parent Tip B:

*Have your child describe the sensory effects he/she gets from identified words or phrases in a poem you are reading with him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 5.5 The student will read a variety of literary forms, including fiction, nonfiction, and poetry.

c) Describe the characteristics of free verse, rhymed, and patterned poetry.

**Builds On:** Work with understanding the characteristics of free verse, rhymed, and patterned poetry continues throughout the study of Right/Left and Right and increases in complexity.

**A**

**9** You can tell this poem is *not* free verse because it —

- A contains lines that rhyme
- B has both long and short lines
- C is all in one stanza
- D has lines that begin with capital letters

**Instruction:** Provide students an opportunity to explain why a poem is not free verse.

## Parent Tip A:

*Have your child explain why a poem you are reading to him/her or he/she is reading is not written in free verse.*

Certain passages and test items have been removed from this form due to copyright limitations.

# English: Reading/Literature and Research Test

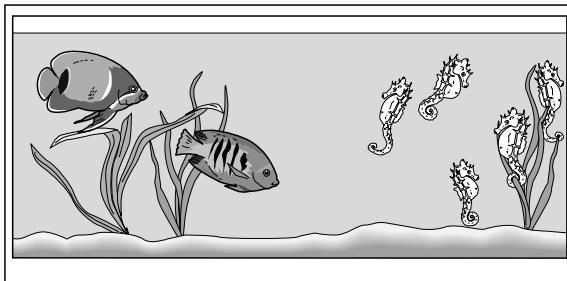
# 5

GRADE

## RELEASED ▼ SELECTION

### Sea Horses Are Unusual Parents

- 1 Sea horses are a strange-looking kind of fish. They have a horse-shaped head and a curled tail that can grip and hold things. Instead of scales, sea horses are covered by a layer of tough bony plates which act like a suit of armor, protecting them from their enemies.
- 2 Sea horses are unusual in another way. The female sea horses lay the eggs, but unlike other creatures, it's the males that give birth to the young.
- 3 Male sea horses have a fold of skin on their bellies that forms a pocket, much like a kangaroo's pouch, called a brood pouch. During breeding season, the sea horse's pouch swells to receive eggs. A female sea horse lays up to 200 eggs at a time in the pouch. Then she swims off, leaving her male partner to care for the developing eggs and give birth to the young sea horses. The female will return every day to check on her mate and the eggs, but she doesn't stay long nor does she take part in the birth.
- 4 It takes from two to six weeks for the eggs in the male's pouch to develop. During this time the male avoids open water and hides in sea grass. His bulging pouch makes it difficult for him to swim, so the male often uses his tail to grasp a piece of sea grass. Firmly gripping the grass, he will stay perfectly still for hours or even days. The male sea horse will change his color to blend with his surroundings and avoid being seen by predators who will try to eat him or poke holes in his pouch to get the eggs. Sea horses can change from black to purple, to bright yellow, and even to neon orange if necessary.
- 5 The eggs hatch inside the male's pouch. When the babies begin moving around, the male sea horse knows it's time for them to be born. He grabs a sea grass stem with his tail and begins rocking, bending his body back and forth. This causes the opening to enlarge until it is wide enough for the first baby sea horse to shoot out. The father sea horse continues rocking, bending, and stretching his body so that the rest of the babies can be born. Sometimes he has to press his pouch against a rock or some stiff seaweed to force the young out.
- 6 Sea horse babies are born in batches of five or more. Depending on the species, baby sea horses can be a quarter-inch to a half-inch long at birth. Sometimes it takes two days for the father sea horse to give birth to all his young. He is very tired when it's over.
- 7 Soon after giving birth to one brood, the male will approach his mate and show her his empty pouch. This tells her he is ready to receive eggs again. Sea horses like being fathers so much that they will have from 4 to 12 broods of babies during breeding season which lasts at least six months.



# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Use Word Analysis Strategies

**A. Standard of Learning:** 4.3 The student will read and learn the meanings of unfamiliar words.

a) Use knowledge of word origins; synonyms, antonyms, and homonyms; and multiple meanings of words.

**Builds On:** Work with word origins continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

18 As it is used in paragraph 4, the word grasp means —

- F take hold of
- G understand
- H show eagerness
- J be able to reach

**Instruction:** Provide students an opportunity to define a word based on its use in a story.

**Reporting Category:** Understand a Variety of Printed Materials/Resource Materials

**B. Standard of Learning:** 4.5 The student will demonstrate comprehension of a variety of literary forms.

b) Formulate questions that might be answered in the selection.

**Builds On:** Work with formulating questions for a paragraph continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

19 Which question does paragraph 2 answer?

- A What is a kangaroo's pouch called?
- B What part does the female sea horse play in having babies?
- C How much do fully grown horses weigh?
- D How many broods of babies will the male have during breeding season?

**Instruction:** Provide students an opportunity to identify a question that a given paragraph could answer.

## Parent Tip A:

*Have your child define a word based on how it appears in a story you are reading with him/her or he/she is reading.*

## Parent Tip B:

*Have your child state a question that a paragraph you have read together could answer.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 4.5 The student will demonstrate comprehension of a variety of literary forms.

c) Make inferences using information from texts.

**Builds On:** Work with making inferences continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**20** What can the reader tell from the article about giving birth to baby sea horses?

- F It is most dangerous for the female.
- G It happens only once every ten years.
- H It is hard work for the male.
- J It happens only in the deepest part of the ocean.

**Instruction:** Provide students an opportunity to make an inference after reading an article.

## Parent Tip A:

*Have your child make an inference in a story you are reading with him/her or he/she is reading.*

**B. Standard of Learning:** 4.5 The student will demonstrate comprehension of a variety of literary forms.

d) Paraphrase content of selection, identifying important ideas and providing details for each important idea.

**Builds On:** Work with comprehension of a variety of literary forms continues throughout the study of Reading and Writing and increases in complexity.

**B**

**21** Which fact does the author want you to remember *most*?

- A The male sea horse gives birth to the young.
- B The female sea horse lays up to 200 eggs at a time.
- C Baby sea horses are one-quarter to one-half inch long at birth.
- D The female will return every day to check on the eggs.

**Instruction:** Provide students an opportunity to determine which fact from an article is most important.

## Parent Tip B:

*Have your child tell you which fact is most important in an article you are reading to him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 4.9 The student will use information resources to research a topic.

a) Construct questions about a topic.

**Builds On:** Work with constructing questions about a topic continues throughout the study of Reading and Writing and increases in complexity.

**A**

**22 Which would be an important question to answer in a report about the topic of this article?**

- F** Where can you buy a sea horse to keep as a pet?
- G** How long do sea horses live?
- H** What are scientists who study sea horses called?
- J** Which animals are most like sea horses?

**Instruction:** Provide students an opportunity to construct questions based on information contained in an article.

## Parent Tip A:

*Help your child construct questions based on information in an article you are reading to him/her or he/she is reading.*

**Reporting Category:** Understand Elements of Literature

**B. Standard of Learning:** 4.4 The student will read fiction and nonfiction, including biographies and historical fiction.

a) Explain the author's purpose.

**Builds On:** Work with explaining the author's purpose based on evidence from a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

**23 The author *probably* wrote this article in order to —**

- A** tell an amusing story about a sea horse
- B** persuade people to become scientists
- C** describe what sea horses look like
- D** explain how sea horses give birth

**Instruction:** Provide students an opportunity to explain why the author wrote the article.

## Parent Tip B:

*Have your child explain why the author wrote the article you are reading with him/her or he/she is reading.*



# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 4.4 The student will read fiction and nonfiction, including biographies and historical fiction.

b) Describe how the choice of language, setting, and information contributes to the author's purpose.

**Builds On:** Work with describing how an author uses language to establish purpose continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**24 The author included the first paragraph because it —**

- F** proves that sea horses are good parents
- G** explains why sea horses are important
- H** describes the appearance of sea horses
- J** gives the author's opinion about sea horses

**Instruction:** Provide students an opportunity to explain why an author included a specified paragraph in a story.

## Parent Tip A:

*Have your child explain why certain paragraphs have been included in a story you are reading with him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

## RELEASED ▼ SELECTION

### Dear Felicity, . . . Kindest Regards, Patsy

Monticello  
July 30, 1781

My Dear Friend Felicity,

- 1 At last I am at leisure to write of our adventures since leaving the Governor's Palace at Williamsburg. I cherish memories of the fun we had playing in the maze there. I wish we could lose the terrible British soldiers in there!
- 2 As you know, we moved inland to Richmond because the British were threatening to attack the Governor's Palace and the Virginia General Assembly. I had hoped that we would see more of Papa in Richmond, but it was not to be. Being governor meant he had meetings from morn till night with the General Assembly. Always we worried the British would come. A young lieutenant from our own soldiers came often to see that we were safe. Mama, Polly, and I yearned for home.
- 3 Twice we fled from Richmond as the British moved up the James River. Finally, in May, we were able to return to Monticello. Home! When Papa's term as governor ended in June, we felt sure that life would return to normal. "Now someone else must worry about the British," Mama said. But how wrong she was!
- 4 Before dawn on June 4th, we were awakened by the sound of thudding hoofbeats. Jack Jouett had ridden through the night to warn us that a troop of British soldiers known as Tarleton's Raiders were on their way to capture Papa!
- 5 We quickly prepared to flee. Clothing for Polly and myself was thrown into a traveling bag. Polly clutched her dolly, Sarah, and I held fast to my treasure box as Papa hurried us out to a waiting carriage. Mama and I climbed up, and then Papa handed Polly in. "Please come with us," begged Mama, but Papa said he had to pack his government papers. The British mustn't be allowed to find them.
- 6 Polly began to cry when the carriage pulled away without Papa. Caring for her took up all my attention for a time. The carriage rocked from side to side, and soon Polly fell asleep. Mama and I talked about what was probably happening back at Monticello. How anxious we would have been if we had known the truth!
- 7 Papa had packed his papers, and then he had watched through his telescope as Tarleton and his band advanced up our mountain. He told us that he became so fascinated with the progress of the British soldiers that he nearly forgot to flee! Two of the servants, Martin and Caesar, were hiding the silver under the trap door in the floor when they heard the British approaching. Martin slammed the trap door shut, and Caesar was trapped there for eighteen hours! He heard the British shouting for Papa. "We want to put silver handcuffs on him," they yelled. We are so grateful Papa escaped!
- 8 The British soldiers left Monticello when they could not find Papa. Thankfully, they did no damage to our home there. But when they did not find Papa at our house in Elk Hill, the story was not the same. The British soldiers burned barns and crops, stole our animals, and seized our servants.
- 9 Now we are home again, but who knows for how long? Do write and tell me the news of Williamsburg.

Kindest regards,  
Patsy Jefferson

# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Use Word Analysis Strategies

**A. Standard of Learning:** 5.4 The student will read and learn the meanings of unfamiliar words.

a) Use knowledge of root words, prefixes, and suffixes.

**Builds On:** Work with prefixes and suffixes continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

25 Read this sentence from the story.

Thankfully, they did no damage to our home there.

In which word does ly mean the same as it does in thankfully?

- A silly
- B lying
- C quietly
- D bully

**Instruction:** Provide students an opportunity to identify a word that contains a given suffix and has the same meaning as another word.

**Reporting Category:** Understand a Variety of Printed Materials/Resource Materials

**B. Standard of Learning:** 4.5 The student will demonstrate comprehension of a variety of literary forms.

b) Formulate questions that might be answered in the selection.

**Builds On:** Work with formulating questions for a paragraph continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

26 Which question might paragraphs 3 and 4 answer?

- F Why were the British soldiers called Tarleton's Raiders?
- G How far did Jack Jouett ride?
- H Why did Patsy and her family leave Monticello again?
- J When was Mr. Jefferson elected governor?

**Instruction:** Provide students an opportunity to identify a question that a given paragraph could answer.

## Parent Tip A:

Have your child identify words with the same suffixes that have the same meaning in a poem you are reading with him/her or he/she is reading.

## Parent Tip B:

Have your child state a question that a paragraph you have read together could answer.

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 4.9 The student will use information resources to research a topic.

b) Collect information, using the resources of the media center.

**Builds On:** Work with print resources continues throughout the study of Reading and Writing and increases in complexity.

**A**

27 To find the *most* information about the Revolutionary War, you would look in —

- A a dictionary
- B a thesaurus
- C an atlas
- D an encyclopedia

**Instruction:** Provide students an opportunity to determine which resource would provide the most information on a given topic.

## Parent Tip A:

*Have your child identify which resource would provide the most information about a topic in a story you are reading to him/her or he/she is reading.*

**B. Standard of Learning:** 5.6 The student will demonstrate comprehension of a variety of literary forms.

c) Identify cause-and-effect relationships.

**Builds On:** Work with determining what causes an event in a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

28 When Mama, Patsy, and Polly fled in the carriage, Papa stayed behind because he —

- F wanted to watch the soldiers through his telescope
- G had to hide the family's silver
- H felt he needed to stay with the family's two servants
- J had to pack some papers to prevent the soldiers from getting them

**Instruction:** Provide students an opportunity to analyze the cause of an event in a passage.

## Parent Tip B:

*Have your child identify the cause of an event in a story you are reading with him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning: 5.8** The student will synthesize information from a variety of resources.

b) Develop notes that include important concepts, paraphrases, summaries, and identification of information sources.

**Builds On:** Work on identification of information sources continues throughout the study of Reading and Writing and increases in complexity.

**A**

**29** This story would *most* likely be found in a book titled —

- A *Homes of Famous Americans*
- B *In the Children's Own Words*
- C *Historical Sights of Virginia*
- D *Early American Leaders*

**Instruction:** Provide students an opportunity to identify a book title that matches a story.

## Parent Tip A:

Have your child identify which book title matches a story you are reading to him/her or he/she is reading.

# English: Reading/Literature and Research Test

# 5

GRADE

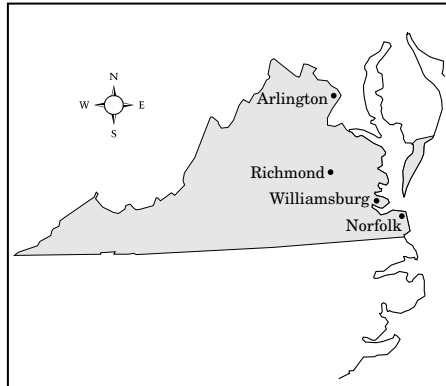
**A. Standard of Learning: 5.8** The student will synthesize information from a variety of resources.

c) Organize and record information on charts, maps, and graphs.

**Builds On:** Work with charts and maps continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**30** This map shows the state of Virginia, where Patsy and her family lived.



According to Patsy's letter and the map, in which direction did the family travel when they left Williamsburg?

- F Northeast
- G Southwest
- H Northwest
- J Southeast

## Parent Tip A:

*Have your child locate a place on a map and determine which direction a person would be traveling according to information in a letter you are reading to him/her or he/she is reading.*

**Instruction:** Provide students an opportunity to locate a place on a map and determine which direction was traveled as described in a letter.

# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Understand Elements of Literature

**A. Standard of Learning:** 4.4 The student will read fiction and nonfiction, including biographies and historical fiction.

a) Explain the author's purpose.

**Builds On:** Work with explaining the author's purpose based on evidence from a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**31 The author *probably* wrote this story in order to —**

- A give information about Jefferson's achievements
- B tell an interesting story about a young girl living in the 1770s
- C persuade the readers to read more about the Revolutionary War
- D describe what life was like for Patsy Jefferson during the late 1700s

**Instruction:** Provide students an opportunity to state the purpose of a story.

**B. Standard of Learning:** 5.5 The student will read a variety of literary forms, including fiction, nonfiction, and poetry.

a) Describe character development in fiction and poetry selections.

**Builds On:** Work with understanding development of characters continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

**32 How would Patsy describe her feelings about the war?**

- F "I am fascinated by all the soldiers."
- G "I am weary of it all."
- H "This fight is no concern of mine."
- J "I truly support the British cause."

**Instruction:** Provide students an opportunity to describe how a writer felt after reading his/her literary work.

## Parent Tip A:

*Have your child state the purpose of a story you are reading with him/her or he/she is reading.*

## Parent Tip B:

*Have your child describe how a writer felt at the end of a story or letter you are reading to him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 5.5 The student will read a variety of literary forms, including fiction, nonfiction, and poetry.

b) Describe the development of plot, and explain how conflicts are resolved.

**Builds On:** Work with analyzing an event in a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**33 What did Patsy think would happen after her father's term as governor ended?**

- A He would be elected to another term.
- B The British would no longer want to capture him.
- C He would become a soldier and fight in the war.
- D The British would invite him to visit England.

**Instruction:** Provide students an opportunity to analyze particular events in a story.

## Parent Tip A:

*Have your child explain what happened after a certain event occurred in a story you are reading with him/her or he/she is reading.*



# English: Reading/Literature and Research Test

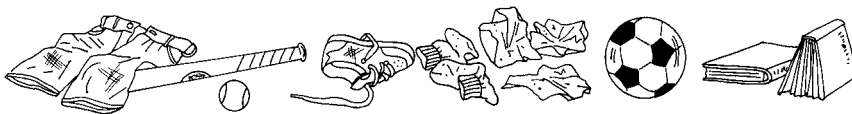
# 5

GRADE

## RELEASED ▼ SELECTION

### My Brother's Mess

- 1 My brother Tim and I each have our own room. My brother has always been very messy, and I've always been very neat. When I would change into my pajamas, I'd hang my clothes over my chair. Tim would throw his on the floor.
- 2 By Saturday of each week, the floor of Tim's room would be covered with a huge pile of dirty clothes mixed with most of the pieces of a chess set, open books, and crumpled pieces of homework. That's when my mother would come in. She would take one look at his room and say, "Tim, you are not going anywhere until this room is fit for human habitation — no one would want to live here."
- 3 On Saturday afternoons, Tim and I like to play baseball with our friends. Tim always asked me to help him clean so he could get to the park in time for the game, and I'd usually end up helping him. Tim is the best pitcher on our team. If he didn't play, the other team would probably win. Tim would always say thank you, but I'd get a little angry with him. I'd rather be outside on Saturday morning than indoors cleaning his room.
- 4 Two weeks ago my friend Gretchen got a puppy. She invited me over to her house on Saturday morning to see the puppy. I warned Tim to start cleaning early that week, but it didn't help. On Saturday morning, his room was messier than ever. He had been looking for a game at the bottom of his old toy box, and his games and toys were all over the floor. I called Gretchen and said I couldn't come. Gretchen invited me again for the next Saturday.
- 5 On Monday, I made up my mind that I would never again let my brother's disorderly habits interfere with my plans. I went to the supermarket after school and asked for three big cardboard boxes. The grocery manager gave me three boxes that paper towels had come in.
- 6 I took the boxes and a black magic marker to my brother's room. On the first box, I wrote the word "clothes" in huge letters. On the second box I wrote the words "books and games." On the third box I wrote "trash." Then I set them in a row against the wall.
- 7 The boxes took up a lot of space, but not as much space as the mess did. For a couple of days, I looked in on my brother after school. I'd point to any clothes or games on the floor, and say "Throw it in the right box!" He then started to remember to do it on his own.
- 8 When Saturday came, we emptied the clothes from the first box into the laundry hamper. Then we put the books on the bookshelf and the games in the toy box. Finally, we emptied the trash box into the garbage can. Then Tim and I went over and played with Gretchen's puppy until time for the baseball game!



# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Use Word Analysis Strategies

**A. Standard of Learning:** 4.3 The student will read and learn the meanings of unfamiliar words.

a) Use knowledge of word origins; synonyms, antonyms, and homonyms; and multiple meanings of words.

**Builds On:** Work with word origins continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

34 In paragraph 5, the word disorderly means —

- F organized
- G cruel
- H entertaining
- J sloppy

**Instruction:** Provide students an opportunity to define a word based on its use in a story.

## Parent Tip A:

*Have your child define a word that appears in a story you are reading with him/her or he/she is reading.*

**B. Standard of Learning:** 5.4 The student will read and learn the meanings of unfamiliar words.

a) Use knowledge of root words, prefixes, and suffixes.

**Builds On:** Work with prefixes and suffixes continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

35 Read this sentence from the story.

The grocery manager gave me three boxes that paper towels had come in.

In which word does er mean the same as in manager?

- A considerer
- B erase
- C stern
- D giver

**Instruction:** Provide students an opportunity to identify a word that contains the same suffix and has the same meaning as another word.

## Parent Tip B:

*Have your child identify words with the same suffix that have the same meaning in a poem you are reading with him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Understand a Variety of Printed Materials/Resource Materials

**A. Standard of Learning:** 5.4 The student will read and learn the meanings of unfamiliar words.

b) Use dictionary, glossary, thesaurus, and other word-reference materials.

**Builds On:** Work with word-reference materials continues throughout the study of Reading and Writing and increases in complexity.

**A**

**36** In paragraph 7, the author uses the word “space” twice. Which of these would help the author find another word to use?

- F A world atlas
- G A thesaurus
- H An encyclopedia
- J A rhyming dictionary

**Instruction:** Provide students an opportunity to determine which word-reference materials should be used to provide the needed information.

**B. Standard of Learning:** 5.8 The student will synthesize information from a variety of resources.

a) Skim materials to develop a general overview of content or to locate specific information.

**Builds On:** Work with skimming passages continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

**37** If you wanted to know what the narrator wrote on the three boxes, you should —

- A reread the entire story carefully
- B skim the story
- C read only the first sentence of each paragraph
- D reread the beginning of the story

**Instruction:** Provide students an opportunity to practice skimming passages.

## Parent Tip A:

*Have your child tell you which word-reference materials would enable him/her to find a different word to use in a story you are reading to him/her or he/she is reading.*

## Parent Tip B:

*Have your child practice skimming a passage in a story you are reading with him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 5.8 The student will synthesize information from a variety of resources.

b) Develop notes that include important concepts, paraphrases, summaries, and identification of information sources.

**Builds On:** Work on determining important concepts continues throughout the study of Reading and Writing and increases in complexity.

**A**

**38 Which of these could be a subtitle for this story?**

- F** How to Make Your Mother Happy
- G** How to Say Thank You
- H** How to Organize a Messy Room
- J** How to Play With a Friend's Puppy

**Instruction:** Provide students an opportunity to give subtitles for stories.

## Parent Tip A:

*Have your child give subtitles for a story you are reading to him/her or he/she is reading.*

# English: Reading/Literature and Research Test

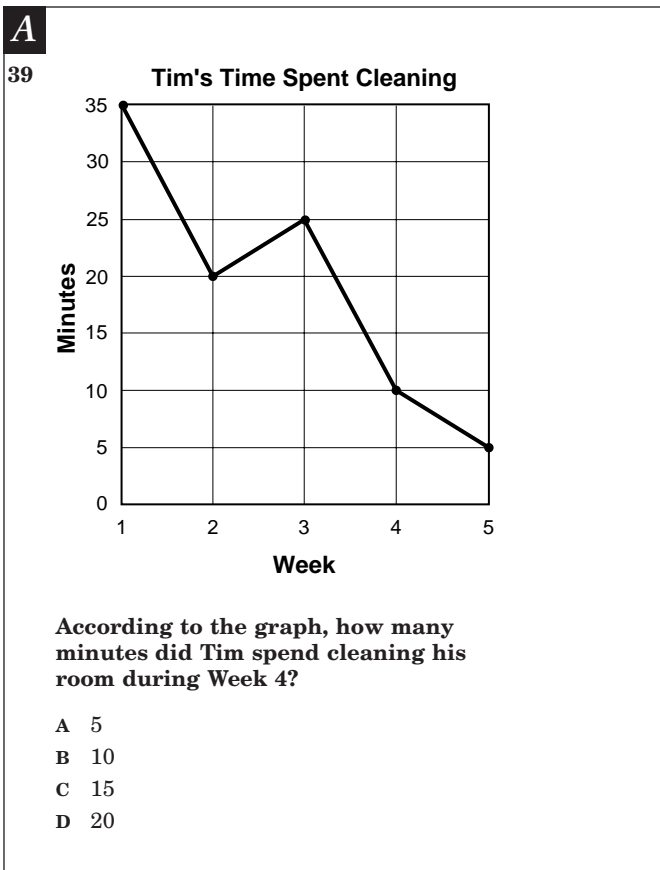
# 5

GRADE

**A. Standard of Learning: 5.8** The student will synthesize information from a variety of resources.

c) Organize and record information on charts, maps, and graphs.

**Builds On:** Work with charts, maps, and graphs continues throughout the study of Reading and Writing and increases in complexity.



## Parent Tip A:

*Have your child answer questions after studying a graph mentioned in a story you are reading to him/her or he/she is reading.*

**Instruction:** Provide students an opportunity to answer questions after analyzing a graph.

# English: Reading/Literature and Research Test

# 5

GRADE

**Reporting Category:** Understand Elements of Literature

**A. Standard of Learning:** 4.4 The student will read fiction and nonfiction, including biographies and historical fiction.

a) Explain the author's purpose.

**Builds On:** Work with explaining the author's purpose based on evidence from a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

40 The author *probably* wrote this story in order to —

- F tell readers about a personal experience
- G teach readers about baseball
- H convince readers to help their parents
- J describe a frustrating day

**Instruction:** Provide students an opportunity to explain why the author wrote the story or composition.

**B. Standard of Learning:** 5.5 The student will read a variety of literary forms, including fiction, nonfiction, and poetry.

a) Describe character development in fiction and poetry selections.

**Builds On:** Work with understanding development of characters continues throughout the study of Reading/Literature and Research and increases in complexity.

**B**

41 Which words probably describe how the narrator felt towards his brother at the beginning of this story?

- A Frustrated and angry
- B Scared and nervous
- C Satisfied and proud
- D Confused and overwhelmed

**Instruction:** Provide students an opportunity to describe how the narrator felt at the beginning of a story.

## Parent Tip A:

*Have your child explain why the author wrote the story you are reading with him/her or he/she is reading.*

## Parent Tip B:

*Have your child describe how the narrator felt at the beginning of a story you are reading to him/her or he/she is reading.*

# English: Reading/Literature and Research Test

# 5

GRADE

**A. Standard of Learning:** 5.5 The student will read a variety of literary forms, including fiction, nonfiction, and poetry.

b) Describe the development of plot, and explain how conflicts are resolved.

**Builds On:** Work with analyzing an event in a story continues throughout the study of Reading/Literature and Research and increases in complexity.

**A**

**42 How did the narrator solve his problem?**

- F** He reminded Tim to clean his room.
- G** He told his mother, and she made Tim clean his room.
- H** He got Gretchen to come over and help.
- J** He helped Tim get organized.

**Instruction:** Provide students an opportunity to analyze a particular event in a story.

## Parent Tip A:

*Have your child explain what happened after a certain event occurred in a story you are reading with him/her or he/she is reading.*

# English: Writing Test

# 5

GRADE

RELEASED ▼ ITEMS

## *The Mysterious Clock*

Rachel's class has been reading short stories. Now Rachel's teacher has asked the students to write a short story of their own. Rachel wants to write a mystery story.

Before she began her story, Rachel wrote these notes. Use them to answer questions 1 and 2.

### Story Ideas

#### Who

- an interesting stranger you see every day
- an unusual neighbor who moves in nearby

#### Where

- an old house that no one ever seems to leave
- a mysterious relative who comes to visit
- a forest clearing where strange lights have been seen

#### What

- a key is found with a note attached to it
- a piece of jewelry is missing
- a clock suddenly starts turning backwards



# English: Writing Test

# 5

GRADE

**Reporting Category:** Plan, compose, and revise writing in a variety of forms for a variety of purposes.

**A. Standard of Learning:** 4.7 The student will write effective narratives and explanations.

c) Organize writing to convey a central idea.

**Builds On:** Work with organizing writing continues throughout the study of writing and increases in complexity.

**A**

**1 Which of these is in the wrong place in Rachel's notes?**

- A** an old house that no one ever seems to leave
- B** a mysterious relative who comes to visit
- C** a key is found with a note attached to it
- D** a piece of jewelry is missing

**Instruction:** Provide students an opportunity to analyze story ideas to identify a note that is placed under the wrong heading.

**A. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

b) Organize information.

**Builds On:** Work with a variety of organizational techniques continues throughout the study of Writing and increases in complexity.

**B**

**2 Which of these could be added under Who in Rachel's notes?**

- F** a tree that seems to moan in the wind
- G** a beautiful box that can never be opened
- H** a building that turns its own lights off
- J** a friend who begins behaving strangely

**Instruction:** Provide students an opportunity to determine which note could be added to a heading.

## Parent Tip A:

*Have your child identify a note that is under the wrong heading in a list of story ideas that your child will use to write a story.*

## Parent Tip B:

*Have your child determine which note could be added to a heading in a list of story ideas that your child will use to write a story.*

# English: Writing Test

# 5

GRADE

## RELEASED ▼ ITEMS

**Here is the first part of Rachel's rough draft. Use it to answer questions 3-5.**

(1)When Penny Morrissey and her family moved into their new house, they were surprised to find that the other people had left something behind. (2)It stood against the wall and faced the front door. (3)When they walked inside their new house, it was the first thing they saw. (4)It was one of those tall, fancy clocks. (5)It was one of those clocks called a grandfather clock.

(6)It was a beautiful clock. (7)The hands of the silent clock stood perfectly still. (8)For a few moments, the whole family stood and admired it. (9)The last neighborhood they lived in was really noisy.

(10)Penny's mother said, "We just need to start it up again," and she did. (11)"It's 5:31 now. (12)In about a half hour, we will hear it chime six times." (13)They all went into the kitchen, and Penny's mom and dad cooked supper while the kids did their homework. (14)Now and then they looked up at the kitchen clock and waited for the six chimes.

**A. Standard of Learning: 4.7** The student will write effective narratives and explanations.

e) Utilize elements of style, including word choice, tone, voice, and sentence variation.

**Builds On:** Work on identifying sentences that do not belong continues throughout the study of writing and increases in complexity.

**A**

**3 Which of these sentences does *not* belong in Rachel's story?**

- A 3
- B 5
- C 7
- D 9

### Parent Tip A:

*Have your child look at a rough draft and eliminate a sentence that does not belong.*

**Instruction:** Provide students an opportunity to look at a rough draft and determine what sentence does not belong.

# English: Writing Test

# 5

GRADE

**A. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

c) Use vocabulary effectively.

**Builds On:** Work with using effective vocabulary continues throughout the study of Writing and increases in complexity.

**A**

**4** How can Rachel write the other people to improve the meaning of sentence 1?

- F the people who had lived there before
- G those other people
- H people besides us
- J the other people before

**Instruction:** Provide students an opportunity to rewrite a group of underlined words to improve the meaning of the sentence.

## Parent Tip A:

*Have your child rewrite a phrase to improve the meaning of a sentence in a story that he/she has written.*

**B. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

d) Vary sentence structure.

**Builds On:** Work with sentence structure continues throughout the study of Writing and increases in complexity.

**B**

**5** How can Rachel *best* combine sentences 4 and 5 without changing their meaning?

- A Tall and fancy, and it was one of those clocks called a grandfather clock.
- B It was one of those tall, fancy clocks called a grandfather clock.
- C It was one of those clocks it was one of those tall fancy clocks called a grandfather clock.
- D One of those clocks called a grandfather clock, and it was one of those tall clocks and fancy.

**Instruction:** Provide students an opportunity to vary sentence structure by joining two sentences together without changing their meaning.

## Parent Tip B:

*Have your child choose two sentences from a story he/she has written and join them together into one sentence without changing their meaning.*

# English: Writing Test

# 5

GRADE

## RELEASED ▼ ITEMS

**Read this next section of Rachel's rough draft and answer questions 6–9. This section has groups of underlined words. The questions ask about these groups of underlined words.**

(15)When the kitchen clock said 6 o'clock, though, they were surprised at what they heard. (16)The grandfather clock's chimes sounded lovely, but there were only five of them! (17)Puzzled, they all looked at each other.

(18)"Did you hear what I heard? Penny asked.

(19)"Let's go and look at the clock," said her older sister Clara.

(20)They did. (21)It said 5 o'clock! (22)It had gone backwards in time instead of forwards!

(23)"Wow!" said Clara and Penny at the same time.

(24)Just then, they heard the sound of a engine out front. (25)They looked out the window and saw a pickup truck pulling up to the curb—backwards! (26)A man jumped out of the truck. (27)They hadn't seen him before. (28)They watched as he approached the house.

(29)"Kcolc ym togrof I," he said over his shoulder when they opened the door. (30)"Oh, sorry!" he said then, turning around to face them. (31)"What I meant to say was that I forgot my clock!"

# English: Writing Test

# 5

GRADE

**Reporting Category:** Edit for correct use of language, grammar, capitalization, punctuation, and spelling.

**A. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

f) Edit final copies for grammar, capitalization, spelling, and punctuation, especially the use of possessives and quotation marks.

**Builds On:** Work with editing rough drafts continues throughout the study of Writing.

**A**

6 In sentence 16, sounded lovely should be written —

- F sound lovley
- G sounded luvly
- H sounded lovly
- J as it is

8 In sentence 19, her older sister Clara should be written —

- F her older Sister Clara
- G her Older Sister Clara
- H her older sister clara
- J as it is

7 In sentence 18, “Did you hear what I heard? Penny asked.” should be written —

- A “Did you hear what I heard?” Penny asked.
- B “Did you hear what I heard? “Penny asked.”
- C “Did you hear what I heard” Penny asked?
- D as it is

9 In sentence 24, the sound of a engine should be written —

- A the sound of an engine
- B the sound off a engine
- C the sound of an engine
- D as it is

## Parent Tip A:

*Have your child correct errors in capitalization, grammar, punctuation, and spelling in a piece of writing.*

**Instruction:** Provide students an opportunity to correct errors in verb usage, capitalization, punctuation, and spelling in a piece of writing.

# English: Writing Test

# 5

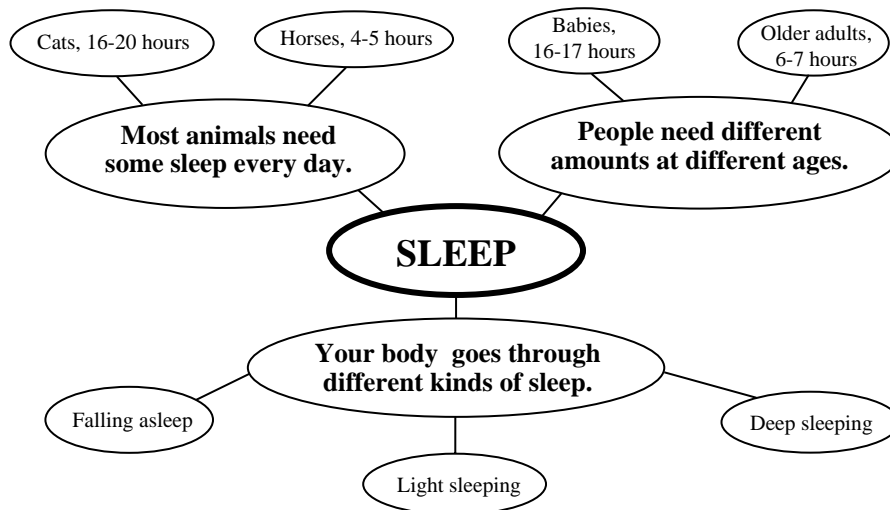
GRADE

RELEASED ▼ ITEMS

## *A Good Night's Sleep*

Alberto's teacher has asked the students to write about something needed to stay healthy. Alberto wants to write about the importance of getting a good night's sleep.

Alberto made this web. Use it to answer question 10.



# English: Writing Test

# 5

GRADE

**Reporting Category:** Plan, compose, and revise writing in a variety of forms for a variety of purposes.

**A. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

a) Choose planning strategies for various writing purposes.

**Builds On:** Work with a variety of planning strategies continues throughout the study of Writing and increases in complexity.

**A**

10 Which of these could Alberto add to the heading People need different amounts at different ages. on his web?

- F Bedtimes
- G Taking naps
- H Teenagers, 8-12 hours
- J Giraffes, 3-4 hours

**Instruction:** Provide students an opportunity to analyze a web to identify which entry should be placed in the selected category.

## Parent Tip A:

*Have your child organize information for a story into a web and then give him/her several entries and ask him/her which entry should be placed in the selected category.*

RELEASED ▼ ITEMS

**Here is the first part of Alberto's rough draft. Use it to answer questions 11-14.**

(1)The other night something unusual happened to me. (2)No matter how hard I tried, I couldn't fall asleep. (3)My mind was running like a herd of wild horses thundering across the prairie. (4)I found myself thinking about everything in my life, like my schoolwork and my friends. (5)The thoughts were good, except that they were making me unable to sleep and were keeping me awake. (6)The next day I was very tired. (7)I even had some trouble concentrating. (8)Not being able to sleep reminded me of how important sleep is.

(9)Sleep is important not only for humans but also for animals. (10)There are some animals that do not sleep at all. (11)This includes bullfrogs. (12)However, most animals do need to sleep. (13)Different animals need different amounts of sleep each day. (14)Big animals that eat grass, like horses and cows, do not sleep very much. (15)They sleep only about four hours a day. (16)To feed their large bodies, they have to stay awake most of the time.

# English: Writing Test

# 5

GRADE

**A. Standard of Learning:** 4.7 The student will write effective narratives and explanations.

c) Organize writing to convey a central idea.

**Builds On:** Work with organizing writing continues throughout the study of Writing and increases in complexity.

**A**

**11 Which sentence could *best* be added after sentence 16?**

- A Sometimes the dreams that we have while we're asleep are very interesting.
- B Did you know that we humans spend a third of our lives asleep?
- C Other smaller animals, such as wolves, spend less time eating and more time sleeping.
- D If you do not get enough sleep, you will not be able to think very well at school.

**Instruction:** Provide students an opportunity to determine which sentence could best be added to the end of a story.

## Parent Tip A:

*Have your child determine an additional sentence to add to an ending of a story that he/she has written.*

**B. Standard of Learning:** 5.7 The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

c) Use vocabulary effectively.

**Builds On:** Work with using effective vocabulary continues throughout the study of Writing and increases in complexity.

**B**

**12 Which sentence is the *most* descriptive?**

- F 1
- G 3
- H 7
- J 10

**Instruction:** Provide students an opportunity to identify the most descriptive sentence in a piece of writing.

## Parent Tip B:

*Have your child identify the most descriptive sentence in a piece of writing he/she has written.*



# English: Writing Test

# 5

GRADE

**A. Standard of Learning: 5.7** The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

e) Revise writing for clarity.

**Builds On:** Work with revision of writing for clarity continues throughout the study of Writing and increases in complexity.

**A**

**13 How should sentence 12 be written?**

- A Most, however, animals do need to sleep.
- B Animals do need sleep, however, most.
- C However, to sleep most animals do need to.
- D As it is

**14 Which sentence says the same thing twice?**

- F 2
- G 5
- H 6
- J 15

**Instruction:** Provide students an opportunity to look at a rough draft and determine if a sentence should be changed; provide students an opportunity to determine if two sentences are stating the same information.

## Parent Tip A:

*Have your child look at a rough draft and decide if a sentence should be changed or if two sentences are giving the same information.*

RELEASED ▼ ITEMS

**Read this next section of Alberto's rough draft and answer questions 27–32. This section has groups of underlined words. The questions ask about these groups of underlined words.**

(17)Sleep is as important to us as food, water, and air. (18)Our bodies have a lot of work to do, so they need a certain amount of rest each day. (19)As we grows older, our need for sleep changes. (20)Babies need a lot of sleep, about sixteen hours a day. (21)Children and teenagers need about ten hours a day. (22)When were grown up, we'll need about eight hours.

(23)We sleep at night because that's when our bodies want to sleep. (24)darkness causes our brains to make us sleepy. (25)Have you ever gone to a movie on a sunny Saturday afternoon. (26)It probably felt strange to go back out into the sunlight. (27)You might have been yawning because the darkness made your brain think it was nighttime.

(28)I never knew how important sleep is for both people and animals. (29)Now when I walk through the park, I try not to wake up the animals that are sleeping!

# English: Writing Test

# 5

GRADE

**Reporting Category:** Edit for correct use of language, grammar, capitalization, punctuation, and spelling.

**A. Standard of Learning:** 4.8 The student will edit final copies of writings.

a) Use subject-verb agreement.

**Builds On:** Work with correct subject-verb agreement continues throughout the study of writing and increases in complexity.

**A**

15 In sentence 19, we grows older should be written —

- A we grow older
- B we grow more older
- C we growing older
- D as it is

**Instruction:** Provide students an opportunity to correct a sentence in which the subject-verb is not in agreement.

## Parent Tip A:

*Have your child look at a rough draft to find sentences where the subject-verb agreement is not correct.*

**B. Standard of Learning:** 4.8 The student will edit final copies of writings.

d) Use commas in series, dates, and addresses.

**Builds On:** Work with commas continues throughout the study of writing and increases in complexity.

**B**

16 In sentence 17, food, water, and air should be written —

- F food, water and, air
- G food water and air
- H food water, and, air
- J as it is

**Instruction:** Provide students an opportunity to correct errors in the use of commas in a series.

## Parent Tip B:

*Have your child examine a story that he/she has written for correct use of commas in series.*

# English: Writing Test

# 5

GRADE

**A. Standard of Learning: 5.7** The student will write for a variety of purposes to describe, to inform, to entertain, and to explain.

f) Edit final copies for grammar, capitalization, spelling, and punctuation, especially the use of possessives and quotation marks.

**Builds On:** Work with editing rough drafts continues throughout the study of Writing.

**A**

17 **In sentence 22, were grown up, we'll should be written —**

- A were grow up, well
- B we're grown up, we'll
- C we're growed up, well
- D as it is

19 **In sentence 25, Saturday afternoon. should be written —**

- A saturday afternoon.
- B Saturday Afternoon!
- C Saturday afternoon?
- D as it is

18 **In sentence 24, darkness causes our brains should be written —**

- F Darkness causes our brains
- G darkness causes our branes
- H Darkness cause our braines
- J as it is

20 **In sentence 26, to go back out into should be written —**

- F to go back owt into
- G too go back out in to
- H two go back out in to
- J as it is

## Parent Tip A:

*Have your child correct errors in capitalization, grammar, punctuation, and spelling in a piece of writing.*

**Instruction:** Provide students an opportunity to correct errors in verb usage, capitalization, punctuation, and spelling in a piece of writing.

# English: Writing Test

# 5

GRADE

In the direct writing component, students write a composition about a topic presented to them in a writing prompt. The writing prompt page also includes a “Checklist for Writers” that lists points for students to keep in mind as they write. Writing compositions are scored in each of the following domains:

- Composing
- Written Expression
- Usage/Mechanics

Scores in the Composing and Written Expression domains are reported as part of the Reporting Category called **Plan, Compose, and Revise Writing in a Variety of Forms for a Variety of Purposes**. Scores in the Usage/Mechanics domain are reported as part of the Reporting Category called **Edit for Correct Use of Language, Capitalization, Punctuation, and Spelling**. A writing prompt from the Spring 2001 administration is shown below.

**Virginia**  
Standards of Learning Assessments

Grade 5

## ENGLISH: WRITING

### PROMPT No. 520

Write about a time when you saw something really beautiful OR something really interesting. Describe what you saw so that someone would be able to understand why it was beautiful or interesting. Be sure to use specific details.

### CHECKLIST FOR WRITERS

- ☐ I planned my paper before writing it.
- ☐ I revised my paper to be sure that
  - ☐ the central idea of my paper is clear;
  - ☐ the central idea of my paper is elaborated;
  - ☐ everything in my paper talks about my central idea;
  - ☐ my paper is logically organized so readers will understand my message;
  - ☐ my words and information make my paper interesting to readers;
  - and
  - ☐ my sentences make sense sound like me, and read smoothly.
- ☐ I edited my paper to be sure that
  - ☐ I used good grammar;
  - ☐ I used capital letters and punctuation marks correctly;
  - ☐ I made my spelling correct; and
  - ☐ I let my readers know where I started new paragraphs.
- ☐ I checked my paper to make sure that it is the way that I want readers to read it.

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# Mathematics Test

# 5

GRADE

**Reporting Category:** Number and Number Sense

**A. Standard of Learning:** 4.1 The student will

a) identify, orally and in writing, the place value for each digit in a whole number expressed through millions.

**Builds To:** Work with the identification of each digit in a whole number continues throughout the study of mathematics.

**A**

1 One year there were 1,546,257 people enrolled in Virginia schools. What is the value of the 4 in that number?

- A 4
- B 400
- C 4,000
- D 40,000

**Instruction:** Provide students an opportunity to examine a whole number and identify the place value of each digit.

## Parent Tip A:

*Have your child identify the place value of each number through millions.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 4.1 The student will

b) compare two whole numbers, expressed through millions, using symbols ( $>$ ,  $<$ , or  $=$ ).

**Builds To:** Comparisons of quantities continues throughout the study of mathematics.

**A**

- 2** The table shows the number of visitors recorded one year to some national parks.

Name of Park	Number of Visitors
Assateague Island National Seashore	1,836,784
Cumberland Gap National Historical Park	1,317,835
Shenandoah National Park	1,473,100
Valley Forge National Historical Park	1,784,520

Which of the following is a true statement about the number of visitors to these parks?

- F  $1,836,784 < 1,784,520$   
 G  $1,473,100 < 1,317,835$   
 H  $1,317,835 < 1,784,520$   
 J  $1,836,784 < 1,473,100$

**Instruction:** Provide students an opportunity to use inequality symbols with numbers through millions.

## Parent Tip A:

Have your child insert the appropriate inequality symbol between two numbers that you have written on a piece of paper.

# Mathematics Test

# 5

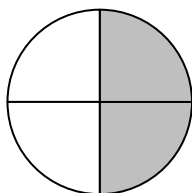
GRADE

**A. Standard of Learning:** 4.2 The student will identify and represent equivalent fractions and relate fractions to decimals, using concrete objects.

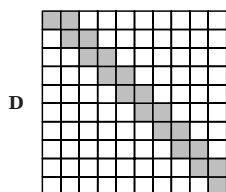
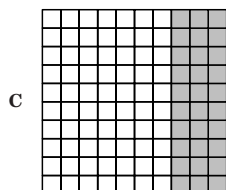
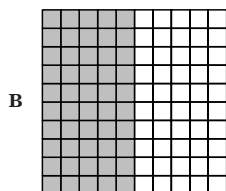
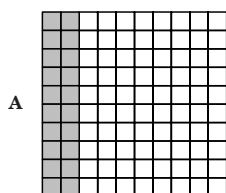
**Builds To:** Work with equivalent fractions continues throughout the study of mathematics.

**A**

3 A fraction of this circle is shaded.



Which is shaded to represent a decimal with the same value as the fraction?



4 A fraction of these caps is dark.



Which of the following groups has an equivalent fraction of dark caps?



## Parent Tip A:

Have your child examine pictures that can represent fractions (like a picture of a sliced pizza) and identify the fractional parts.

**Instruction:** Provide students an opportunity to determine equivalent fractions from pictorial representations.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 4.3 The student will compare the numerical value of fractions having denominators of 12 or less.

**Builds To:** Work with comparing fractions continues throughout the study of mathematics.

**A**

5 Which has a value greater than  $\frac{1}{5}$ ?

A  $\frac{1}{3}$

B  $\frac{1}{6}$

C  $\frac{1}{8}$

D  $\frac{1}{10}$

**Instruction:** Provide students an opportunity to compare fractions with unlike denominators.

**B. Standard of Learning:** 4.4 The student will read, write, represent, and identify decimals expressed through thousandths, and round to the nearest tenth and hundredth, using concrete materials, drawings, calculators, and symbols.

**Builds To:** Work with decimals continues throughout the study of mathematics.

**B**

6 A piece of wood is 2.27 centimeters thick. What is that measurement rounded to the nearest tenth of a centimeter?

F 2.1

G 2.2

H 2.3

J 2.5

**Instruction:** Provide students an opportunity to round decimals to the nearest tenth.

## Parent Tip A:

Have your child work with measuring cups to determine equivalence such as  $\frac{3}{4} = \frac{1}{2}$ . Using  $\frac{1}{3}$  cup and  $\frac{1}{4}$  cup measure, have your child compare the quantities each holds and determine which is larger.

## Parent Tip B:

Have your child identify decimal numbers in the newspaper, read them to you, and round to an appropriate place value.



# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 5.1 The student will read, write, and identify the place values of decimals through ten-thousandths.

**Builds To:** Work with place value continues throughout the study of mathematics.

**A**

**7** Which means “six and seventy-four thousandths”?

- A 674,000
- B 6.74
- C 6.074
- D 0.6074

**Instruction:** Provide students an opportunity to translate between verbal representations and numeric representations of decimals.

## Parent Tip A:

*Have your child write out in words a decimal numeral that you give him/her.*

**B. Standard of Learning:** 5.2 The student will compare the value of two decimals through ten-thousandths using the symbols  $>$ ,  $<$ , or  $=$ .

**Builds To:** Comparison of numerals continues throughout the study of mathematics.

**B**

**8** Which is true?

- F  $1.3749 < 1.0399$
- G  $1.526 < 1.2605$
- H  $1.7908 < 1.879$
- J  $1.463 < 1.3902$

**Instruction:** Provide students an opportunity to compare decimals using the appropriate inequality symbol.

## Parent Tip B:

*Have your child insert the correct inequality symbol between two decimals that you give him/her.*

# Mathematics Test

# 5

GRADE

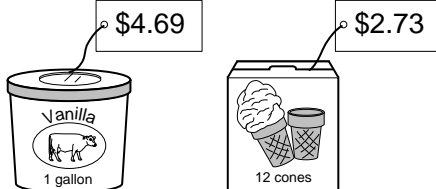
**Reporting Category:** Computation and Estimation

**A. Standard of Learning:** 4.5 The student will create and solve problems involving addition and subtraction of money amounts using various computational methods, including calculators, paper and pencil, mental computation, and estimation.

**Builds To:** Work with solving problems continues throughout the study of mathematics and increases in difficulty.

**A**

9 What would be the cost of 2 gallons of ice cream and 2 boxes of ice cream cones?



A \$4.69

\$2.73

Vanilla  
1 gallon

12 cones

A \$12.64  
B \$12.84  
C \$14.64  
D \$14.84

**Instruction:** Provide students an opportunity to solve problems involving money amounts.

**B. Standard of Learning:** 4.6 The student will estimate whole-number sums and differences and describe the method of estimation. Students will refine estimates, using terms such as closer to, between, and a little more than.

**Builds To:** Estimation is used throughout the study of mathematics.

**B**

10 Which is the best estimate for  $8,032 - 2,936$ ?

F About 4,000  
G About 5,000  
H About 6,000  
J About 7,000

**Instruction:** Provide students an opportunity to estimate the difference between two numbers.

## Parent Tip A:

Have your child create a problem from a picture that you provide him/her and then solve it.

## Parent Tip B:

Have your child estimate a sum or difference for two numbers that you provide. Your child should be able to explain the method used to estimate.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 4.7** The student will add and subtract whole numbers written in vertical and horizontal form, choosing appropriately between paper and pencil methods and calculators.

**Builds To:** Work with addition continues throughout the study of mathematics.

- A**
- 11  $75,243 + 3,089 = ?$
- A 75,632
  - B 78,322
  - C 78,332
  - D 106,133

**Instruction:** Provide students an opportunity to add whole numbers when presented in horizontal form.

**A. Standard of Learning: 4.8** The student will find the product of two whole numbers when one factor has two digits or less and the other factor has three digits or less, using estimation and paper and pencil. For larger products (a two-digit numeral times a three-digit numeral), estimation and calculators will be used.

**Builds To:** Work with multiplication continues throughout the study of mathematics.

- B**
- 12  $\begin{array}{r} 709 \\ \times 8 \\ \hline \end{array}$
- F 6,302
  - G 6,262
  - H 5,672
  - J 5,602

**Instruction:** Provide students an opportunity to multiply whole numbers using paper and pencil.

## Parent Tip A:

*Have your child add whole numbers.*

## Parent Tip B:

*Have your child multiply two numbers together and explain the process used.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 4.10** The student will

a) add and subtract with fractions having like and unlike denominators of 12 or less and with decimals through thousandths, using concrete materials and paper and pencil.

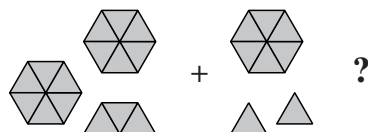
**Builds To:** Work with addition and subtraction of fractions having denominators of 12 or less, using concrete materials continues throughout the study of mathematics.

**A**

13 **This is 1.**



**What is**



A  $3\frac{2}{6}$

B  $3\frac{5}{6}$

C  $4\frac{2}{6}$

D  $4\frac{5}{6}$

## Parent Tip A:

*Have your child add and/or subtract two fractions, two mixed numbers, and/or a combination of fractions and mixed numbers with like and unlike denominators.*

**Instruction:** Provide students an opportunity to add and subtract two fractions with like and unlike denominators.

# Mathematics Test

# 5

GRADE

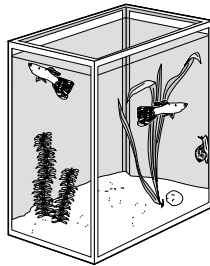
**A. Standard of Learning: 4.10** The student will

b) solve problems involving addition and subtraction of fractions having like and unlike denominators of 12 or less and decimals expressed through thousandths.

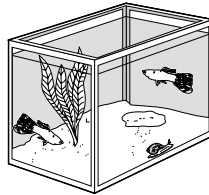
**Builds To:** Work with addition and subtraction of decimals in the thousandths continues throughout the study of mathematics.

**A**

- 14 Hannibal is comparing two kinds of aquariums. The first aquarium can hold a maximum of 12.875 gallons of water. The second aquarium can hold a maximum of 10.65 gallons of water. How many more gallons of water can the first aquarium hold than the second?



12.875  
gallons



10.65  
gallons

- F 1.225  
G 1.181  
H 2.010  
J 2.225

## Parent Tip A:

*Have your child subtract decimals.*

**Instruction:** Provide students an opportunity to subtract decimals.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 5.3 The student will create and solve problems involving addition, subtraction, multiplication, and division of whole numbers, using paper and pencil, estimation, mental computation, and calculators.

**Builds To:** Work with solving problems continues throughout the study of mathematics and increases in difficulty.

**A**

**15 Which product would be in the 200 to 300 range?**

- A  $9 \times 16$
- B  $15 \times 12$
- C  $17 \times 11$
- D  $19 \times 13$

**Instruction:** Provide students an opportunity to solve problems involving division and to solve problems that use a diagram for the answer.

**A. Standard of Learning:** 5.4 The student will find the product of two numbers expressed as decimals through thousandths, using an appropriate method of calculation, including paper and pencil, estimation, mental computation, and calculators.

**Builds To:** Multiplication of decimals continues throughout the study of mathematics.

**B**

**16  $4.8 \times 5.1 =$**

- F 2.448
- G 2.88
- H 24.41
- J 24.48

**Instruction:** Provide students an opportunity to set up and solve a multiplication problem with decimals in tenths.

## Parent Tip A:

*Write a problem that your child will have to solve using one of the four basic operations.*

## Parent Tip B:

*Have your child multiply two numbers expressed as decimals and explain the process used.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 5.5 The student, given a dividend of four digits or less and a divisor of two digits or less, will find the quotient and remainder.

**Builds To:** Work with division continues throughout the study of mathematics.

**A**

17  $3,612 \div 86 =$

- A 41 R86
- B 42
- C 42 R10
- D 420

**Instruction:** Provide students an opportunity to divide a four-digit dividend by a two-digit divisor.

## Parent Tip A:

*Have your child divide two numbers you provide.*

**A. Standard of Learning:** 5.6 The student, given a dividend expressed as a decimal through ten-thousandths and a single-digit divisor, will find the quotient.

**Builds To:** Work with division continues throughout the study of mathematics.

**B**

18  $0.7251 \div 3 =$

- F 0.2417
- G 2.417
- H 24.17
- J 241.7

**Instruction:** Provide students an opportunity to set up and solve a division problem when presented in horizontal form.

## Parent Tip B:

*Have your child divide a decimal by a whole number.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.7** The student will add and subtract with fractions and mixed numerals, with and without regrouping, and express answers in simplest form. Problems will include like and unlike denominators, limited to 12 or less.

**Builds To:** Work with fractions continues throughout the study of mathematics.

**A**

19

$$\begin{array}{r} \frac{1}{2} \\ + \frac{3}{4} \\ \hline \end{array}$$

A  $\frac{2}{3}$

B 1

C  $1\frac{1}{8}$

D  $1\frac{1}{4}$

20

$$\begin{array}{r} 7\frac{8}{9} \\ - 2\frac{6}{7} \\ \hline \end{array}$$

F 5

G  $5\frac{1}{8}$

H  $5\frac{2}{63}$

J  $5\frac{1}{3}$

**Instruction:** Provide students an opportunity to add and subtract fractions with mixed numerals.

## Parent Tip A:

Have your child add and/or subtract two fractions, two mixed numbers, and/or a combination of fractions and mixed numbers with like and unlike denominators.



# Mathematics Test

# 5

GRADE

**Reporting Category:** Measurement and Geometry

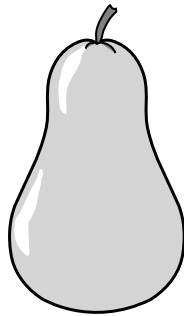
**A. Standard of Learning:** 4.11 The student will

a) estimate and measure weight/mass using actual measuring devices and express the results in both metric and U.S. Customary units, including ounces, pounds, grams, and kilograms.

**Builds To:** Work with estimating measurement continues throughout the study of mathematics and science.

**A**

**21** Which is closest to the weight of a pear?



- A 4 ounces
- B 4 pounds
- C 40 pounds
- D 40 tons

**Instruction:** Provide students an opportunity to estimate the approximate weight of an object of known weight.

## Parent Tip A:

*Have your child guess the weight of objects then measure to get the actual weight.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 4.12** The student will

a) estimate and measure length using actual measuring devices and describe the results in both metric and U.S. Customary units, including part of an inch ( $\frac{1}{2}$ ,  $\frac{1}{4}$ , and  $\frac{1}{8}$ ), inches, feet, yards, millimeters, centimeters, and meters.

**Builds To:** Work with measurement continues through high school geometry.

**A**

- 22** Use your inch ruler to help you answer this question. Which is *closest* to the length of this mailing label?

AB&C Company  
322 Elm Street  
Anycity, USA 00012

**F** 2 in.

**G**  $2\frac{1}{2}$  in.

**H** 3 in.

**J**  $3\frac{1}{2}$  in.

**Instruction:** Provide students an opportunity to measure with an inch ruler.

## Parent Tip A:

*Have your child measure objects and/or distance around the house in both metric and U.S. Customary units.*

# Mathematics Test

# 5

GRADE

## A. Standard of Learning: 4.13 The student will

b) estimate the conversion of quarts and liters, using approximate comparisons (1 quart is a little less than 1 liter, 1 liter is a little more than 1 quart).\*

*\*The intent of this standard is for students to make "ballpark" comparisons and not to memorize conversion factors between U.S. and metric units.*

**Builds To:** Work with conversion between systems continues through high school mathematics.

**A**

**23 Keith used 1 quart of milk to make pudding. Which is closest to this amount?**

- A 1 milliliter
- B 1 liter
- C 1 gallon
- D 1 cup

**Instruction:** Provide students an opportunity to make estimated comparisons in the context of problems.

## B. Standard of Learning: 4.14 The student will identify and describe situations representing the use of perimeter and will use measuring devices to find perimeter in both standard and nonstandard units of measure.

**Builds To:** Work with perimeter continues through high school mathematics.

**B**

**24 Elsa wants to start a garden in her backyard. For which of the following would she need to know the perimeter of the garden?**

- F Determining how much fertilizer is needed to cover the garden
- G Determining how much water is needed for the garden
- H Determining how many seeds are needed to fill the garden with plants
- J Determining how many feet of fencing are needed to go around the garden

**Instruction:** Provide students an opportunity to identify and describe situations representing the use of perimeter.

## Parent Tip A:

*Have students pour liquid into a quart container and a liter container to compare the amounts contained.*

## Parent Tip B:

*Have your child measure the distance around figures using a ruler and other devices (like string or a piece of paper) and tell you the answer.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 4.16** The student will identify and draw representations of points, lines, line segments, rays, and angles, using a straightedge or ruler.

**Builds To:** Work with line segments continues through high school geometry.

**A**

25 Which is a picture of only line segment  $AB$ ?



**Instruction:** Provide students an opportunity to identify a line segment.

**Parent Tip A:**

*Have your child identify line segments.*

**B. Standard of Learning: 5.8** The student will describe and determine the perimeter of a polygon and the area of a square, rectangle, and triangle, given the appropriate measures.

**Builds To:** Work with perimeter and area continues through high school geometry.

**B**

26 What is the area of a rectangle that measures 4 meters wide and 6 meters long?

- F  $10 \text{ m}^2$
- G  $20 \text{ m}^2$
- H  $24 \text{ m}^2$
- J  $100 \text{ m}^2$

**Instruction:** Provide students an opportunity to calculate the perimeter and area of a rectangle and other figures.

**Parent Tip B:**

*Work with your child on determining how much carpet would be needed to cover the floor or how much paint would be needed to cover a wall.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 5.9 The student will identify and describe the diameter, radius, chord, and circumference of a circle.

**Builds To:** Work with circles continues through high school mathematics.

**A**

27 Which statement *must* be true about a diameter of a circle?

- A Divides a circle into fourths
- B Intersects at only one point on the circle
- C Shortest distance across a circle
- D Intersects the center of a circle

**Instruction:** Provide students an opportunity to describe the features of a circle from a diagram.

## Parent Tip A:

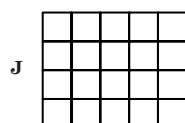
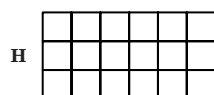
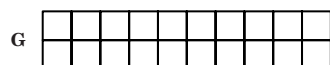
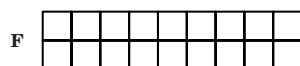
Have your child use circular objects around the house to identify parts of a circle (diameter, radius, chord, and circumference.)

**A. Standard of Learning:** 5.10 The student will differentiate between area and perimeter and identify whether the application of the concept of perimeter or area is appropriate for a given situation.

**Builds To:** Work with area and perimeter continues through high school geometry.

**B**

28 Which figure has an area of 20 square units and a perimeter of 18 units?



**Instruction:** Provide students an opportunity to determine the number of square units/units that make up the area/perimeter of given figures.

## Parent Tip B:

Have your child look at shapes and describe how he/she would find the perimeter and area of the figure.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.12** The student will determine an amount of elapsed time in hours and minutes within a 24-hour period.

**Builds To:** Students will use the concept of time in solving more complex problems throughout the study of mathematics.

**A**

**29** On Monday, a train left Brockton at 8:16 A.M. and arrived in Deming at 3:45 P.M. If there were no stops, how long did the trip take?

- A 19 hours, 29 minutes
- B 7 hours, 31 minutes
- C 7 hours, 29 minutes
- D 5 hours, 31 minutes

**Instruction:** Provide students an opportunity to determine elapsed time in a problem context.

## Parent Tip A:

*Have your child determine when an event will occur in a certain amount of elapsed time.*

# Mathematics Test

# 5

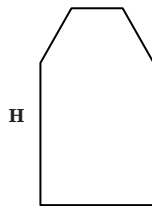
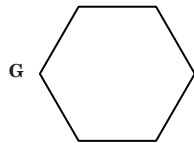
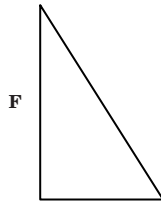
GRADE

**A. Standard of Learning:** 5.13 The student will classify angles and triangles as right, acute, or obtuse.

**Builds To:** Work with angles continues through high school mathematics.

**A**

30 Which has exactly two right angles?



**Instruction:** Provide students an opportunity to identify types of angles.

## Parent Tip A:

*Have your child identify right angles around the house.*

# Mathematics Test

# 5

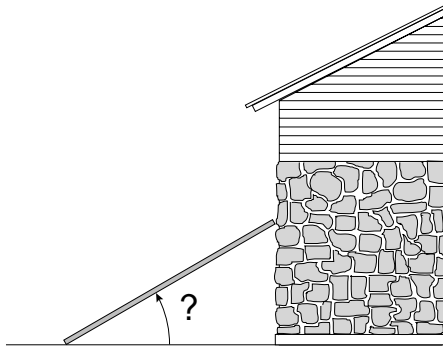
GRADE

**A. Standard of Learning:** 5.14 The student will measure and draw right, acute, and obtuse angles and triangles, using appropriate tools.

**Builds To:** Work with drawing and measuring angles continues through high school geometry.

**A**

- 31 Use your protractor to help you answer this question. Which is closest to the measure of the angle the board makes with the level ground as it rests against the side of the building?



- A 30°
- B 45°
- C 90°
- D 150°

## Parent Tip A:

*Have your child use a protractor to measure angles.*

**Instruction:** Provide students an opportunity to measure angles using a protractor.



# Mathematics Test

# 5

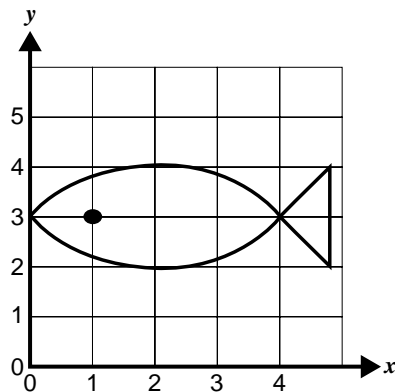
GRADE

**A. Standard of Learning: 5.15** The student will identify the ordered pair for a point and locate the point for an ordered pair in the first quadrant of a coordinate plane.

**Builds To:** Work with identification of the ordered pair for a point and locating the point of an ordered pair continues through high school mathematics.

**A**

**32** In the figure below, which best describes the location of the eye of the fish?



- F** (4, 1)
- G** (3, 1)
- H** (2, 4)
- J** (1, 3)

## Parent Tip A:

Have your child place a dot on a graph and describe the location of the dot as an ordered pair.

**Instruction:** Provide students an opportunity to locate the point of an ordered pair.

# Mathematics Test

# 5

GRADE

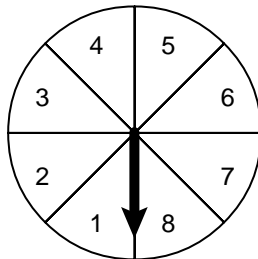
**Reporting Category:** Probability and Statistics

**A. Standard of Learning:** 4.18 The student will determine the probability of a given simple event, using concrete materials.

**Builds To:** Work with probability continues through high school mathematics.

**A**

- 33 The spinner shown below is used to play a game.



What is the probability that the arrow will land on a number greater than 5?

- A  $\frac{3}{5}$   
 B  $\frac{3}{8}$   
 C  $\frac{5}{8}$   
 D  $\frac{1}{3}$

## Parent Tip A:

Have your child determine the probability of tossing a coin and having a head turn up or the probability of rolling a six with a single die.

**Instruction:** Provide students an opportunity to find the probability of a spinner landing on certain numbers.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 4.19 The student will collect, organize, and display data in line and bar graphs with scale increments of one or greater than one.

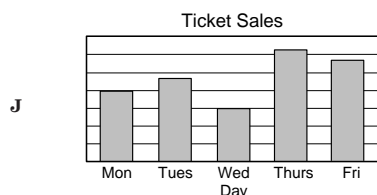
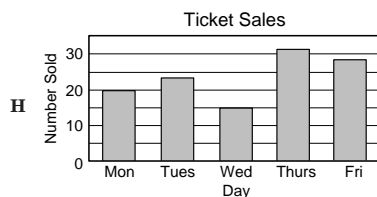
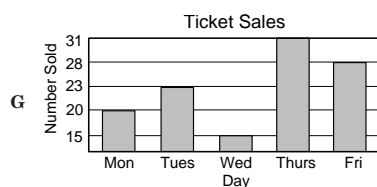
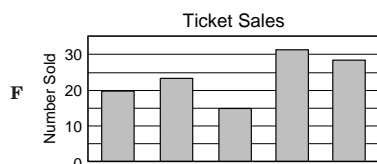
**Builds To:** Work with problem solving, mathematical communication, and mathematical reasoning continues through high school mathematics.

**A**

- 34 The table below shows the number of basketball tickets Mr. Graham's students sold last week.

Ticket Sales	
Day	Number Sold
Monday	20
Tuesday	23
Wednesday	15
Thursday	31
Friday	28

Which of the following shows this information correctly graphed?



## Parent Tip A:

Have your child interpret information from a chart and a graph taken from a newspaper or magazine.

**Instruction:** Provide students an opportunity to analyze data presented in a chart.

# Mathematics Test

# 5

GRADE

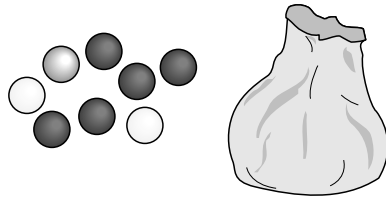
**A. Standard of Learning: 5.16** The student will

b) create a problem statement involving probability based on information from a given problem situation. Students will not be required to solve the problem created.

**Builds To:** Work with probability continues through high school mathematics.

**A**

35



**Jill put the marbles shown above into a bag and shook the bag. Which of the following questions about the marbles could you use probability to solve?**

- A** How many marbles did Jill put in the bag all together?
- B** If Bob picks 1 marble from the bag without looking, what color will it most likely be?
- C** How many more black marbles than white marbles did Jill put in the bag?
- D** If Andy takes 1 marble from the bag, how many marbles will be left in the bag?

**Instruction:** Provide students an opportunity to create a problem statement about probability when given a set of objects.

## Parent Tip A:

*When making sandwiches have your child list all the possible combinations that can be made with the ingredients you have.*

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.17** The student will collect, organize, and display a set of numerical data in a variety of forms, given a problem situation, using bar graphs, stem-and-leaf plots, and line graphs.

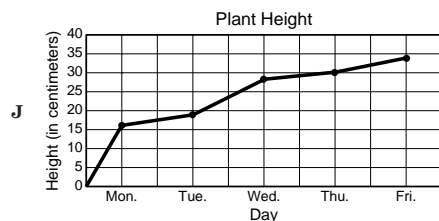
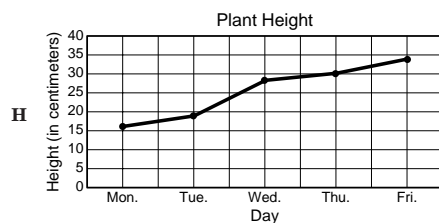
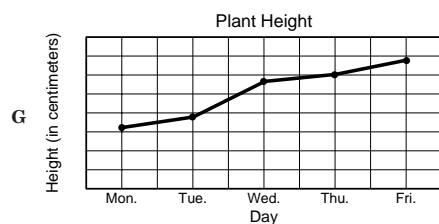
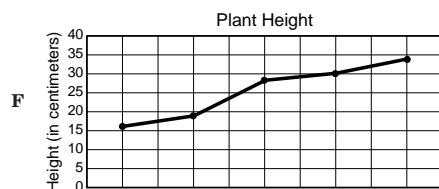
**Builds To:** Work with data continues through high school mathematics.

**A**

- 36** The table shows the height of a bean plant over a 5-day period.

Day	Height
Monday	16 cm
Tuesday	19 cm
Wednesday	28 cm
Thursday	30 cm
Friday	34 cm

Which of the following shows this data correctly graphed?



## Parent Tip A:

Have your child interpret information from a bar or line graph taken from a newspaper or magazine.

**Instruction:** Provide students an opportunity to display a data set on a line graph.

# Mathematics Test

# 5

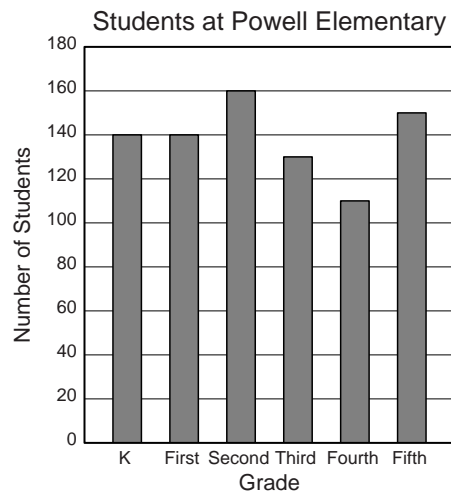
GRADE

**A. Standard of Learning:** 5.17 The student will collect, organize, and display a set of numerical data in a variety of forms, given a problem situation, using bar graphs, stem-and-leaf plots, and line graphs.

**Builds To:** Work with data continues through high school mathematics.

**A**

- 37** The graph shows the number of students in each grade at Powell Elementary School.



**About how many more students are in Fifth grade than Fourth grade?**

- A 12
- B 20
- C 31
- D 40

## Parent Tip A:

Have your child interpret information from a bar or line graph taken from a newspaper or magazine.

**Instruction:** Provide students an opportunity to interpret a graph.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.17** The student will collect, organize, and display a set of numerical data in a variety of forms, given a problem situation, using bar graphs, stem-and-leaf plots, and line graphs.

**Builds To:** Work with data continues through high school mathematics.

**A**

- 38 This list shows the number of cans each student in Angelo's class collected for recycling.

30 21 12 17 25 18  
 35 30 26 31 14 29  
 27 42 35 20 17 34  
 20 31 21 35 44 17

Which of the following stem-and-leaf plots shows this same information?

F

Stem	Leaf
1	2, 4, 7, 8
2	0, 1, 5, 6, 7, 9
3	0, 1, 4, 5
4	2, 4

G

Stem	Leaf
1	2, 4, 7, 8
2	1, 5, 6, 7, 9
3	1, 4, 5
4	2, 4

H

Stem	Leaf
1	2, 4, 7, 7, 7, 8
2	1, 1, 5, 6, 7, 9
3	1, 1, 4, 5, 5, 5
4	2, 4

J

Stem	Leaf
1	2, 4, 7, 7, 7, 8
2	0, 0, 1, 1, 5, 6, 7, 9
3	0, 0, 1, 1, 4, 5, 5, 5
4	2, 4

## Parent Tip A:

Have your child collect data on the number of different items owned by family members and arrange data in a stem-and-leaf plot.

**Instruction:** Provide students an opportunity to arrange data into a stem-and-leaf plot.

# Mathematics Test

# 5

GRADE

**B. Standard of Learning: 5.17** The student will collect, organize, and display a set of numerical data in a variety of forms, given a problem situation, using bar graphs, stem-and-leaf plots, and line graphs.

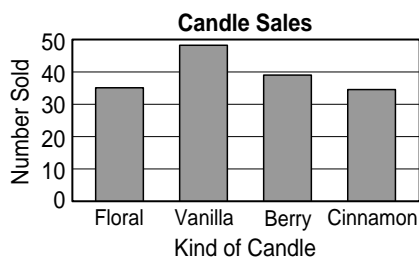
**Builds To:** Work with data continues through high school mathematics.

**A**

- 39 The table below shows the number of each kind of candle a shop sold.

Candle Sales	
Kind of Candle	Number Sold
Floral	35
Vanilla	48
Berry	39
Cinnamon	46

The shop manager made this bar graph to display the information in the table.



Which of the amounts from the table is not graphed correctly?

- A Floral
- B Vanilla
- C Berry
- D Cinnamon

## Parent Tip A:

Have your child collect data on the number of certain items owned by family members and display data in a chart and on a bar graph.

**Instruction:** Provide students an opportunity to collect data and display the information in a data table and on a bar graph.



# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.18** The student will find the mean and mode of a set of data.

**Builds To:** Work with the mean and mode continues throughout the study of mathematics.

**A**

- 40 The table below shows the number of babysitting jobs Millie and her friends had last month.

Babysitting Jobs	
Name	Number of Jobs
Millie	13
Jean	7
Susan	8
Andrea	8

What was the mean (average) number of babysitting jobs Millie and her friends had last month?

- F 7  
G 8  
H 9  
J 13

## Parent Tip A:

*Have your child use the newspaper to gather data and find the mean (average) and mode (most frequently occurring number) of that data.*

**Instruction:** Provide students an opportunity to find the mean for a set of data and to find the mode from a table of data.

# Mathematics Test

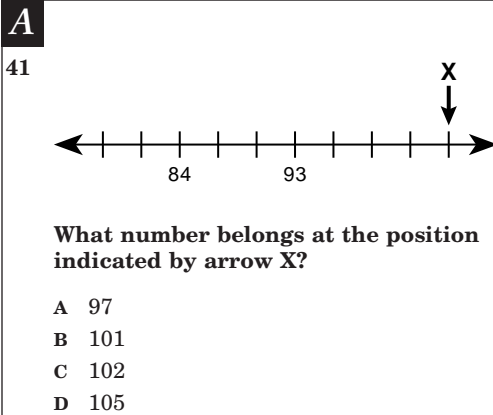
# 5

GRADE

**Reporting Category:** Patterns, Functions, and Algebra

**B. Standard of Learning:** 4.20 The student will identify and locate missing whole numbers on a given number line.

**Builds To:** Work with the number line continues as students study the real number system.



**Instruction:** Provide students an opportunity to locate numbers on a number line that does not start with zero.

## Parent Tip A:

*Have your child place numbers on a number line using cards with numbers and a piece of string as the line. Attach the number cards with clothespins.*

# Mathematics Test

# 5

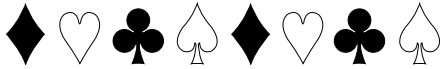
GRADE

**A. Standard of Learning:** 4.21 The student will extend a given pattern, using concrete materials and tables.

**Builds To:** Work with patterns and tables continues throughout the study of mathematics.

**A**

42



If this pattern continues, what will the *eleventh* shape look like?



43 The table shows the cost of hamburgers.

Number of Hamburgers	Total Cost
1	\$2.25
2	\$4.50
3	\$6.75
4	\$9.00
5	\$11.25

If the pattern continues, what will be the cost for 6 hamburgers?

- A \$12.50
- B \$13.50
- C \$13.75
- D \$14.25

## Parent Tip A:

Have your child look at a pattern diagram and predict what item would be in a specified position (tenth) if the pattern were extended.

**Instruction:** Provide students an opportunity to determine what particular item in the pattern would appear in a specified position if the pattern is extended; and to extend a pattern presented in a table.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning:** 4.22 The student will solve problems involving pattern identification and completion of patterns.

**Builds To:** Work with solving problems involving pattern identification continues throughout the study of mathematics.

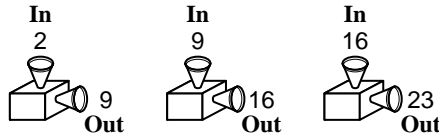
**A**

- 44 If the pattern shown below continues, 45 what will be the next number?

25, 50, 100, 200, 400, \_\_\_\_

- F 425
- G 450
- H 800
- J 1,000

The picture below shows what happened when the numbers 2, 9, and 16 were put into the same number machine.



If the number 20 is put into the same number machine, what number should come out?

- A 24
- B 26
- C 27
- D 29

## Parent Tip A:

*Have your child look at a pattern diagram and predict what item would be in a specified position (tenth) if the pattern were extended.*

**Instruction:** Provide students an opportunity to solve problems using pattern identification.

# Mathematics Test

# 5

GRADE

**B. Standard of Learning: 5.19** The student will investigate, describe, and extend numerical and geometric patterns, including triangular numbers, perfect squares, patterns formed by powers of 10, and arithmetic sequences. Concrete materials and calculators will be used.

**Builds To:** Work with numerical and geometric patterns continues throughout the study of mathematics.

**A**

46 These figures form a pattern.



If the pattern continues, what will the next shape look like?



47 If the pattern shown below continues, what will be the next number?

8, 13, 11, 16, 14, ...

- A 19
- B 18
- C 12
- D 9

## Parent Tip A:

Have your child look at a pattern diagram and predict what item would be in a specified position (tenth) if the pattern were extended.

**Instruction:** Provide students an opportunity to work with extending numerical patterns and geometric patterns.

# Mathematics Test

# 5

GRADE

**A. Standard of Learning: 5.20** The student will

b) use a variable to represent a given verbal quantitative expression, involving one operation.

**Builds To:** Work with equations (open sentences) continues through high school mathematics.

**A**

- 48 Elizabeth made 3 times as many home runs during baseball season as her friend Tanya. If  $R$  represents the number of home runs Tanya made, which expression can be used to find the number of home runs Elizabeth made this season?
- 49 If  $B$  represents a number, which means “a number divided by 9”?

F  $R \div 3$

G  $R + 3$

H  $R - 3$

J  $R \times 3$

A  $B + 9$

B  $B - 9$

C  $9 \div B$

D  $B \div 9$

**Instruction:** Provide students an opportunity to represent a given verbal statement with an open sentence that contains a variable.

## Parent Tip A:

Have your child translate a verbal expression to an algebraic expression.

**B. Standard of Learning: 5.21** The student will create a problem situation based on a given open sentence using a single variable.

**Builds To:** Work with open sentences and problems continues throughout the study of mathematics.

**B**

- 50 Which of these could be solved by using the open sentence  $A - 5 = ?$
- F Janis is 5 years older than Seth. If  $A$  is Seth's age in years, how old is Janis?
- G Todd is 5 years younger than Amelia. If  $A$  is Amelia's age in years, how old is Todd?
- H Isaac is 5 times as old as Bert. If  $A$  is Bert's age in years, how old is Isaac?
- J Nathan is one-fifth as old as Leslie. If  $A$  is Nathan's age, how old is Leslie?

**Instruction:** Provide students an opportunity to create a problem based on a given open sentence.

## Parent Tip B:

Have your child create a problem to match a given algebraic sentence.

# Science Test

## 5 GRADE

**Reporting Category:** Scientific Investigation

**A. Standard of Learning:** 4.1 The student will plan and conduct investigations in which

d) appropriate instruments are selected to measure linear distance, volume, mass, and temperature.

**Builds To:** Work with units of measurement continues throughout the study of mathematics and science and increases in complexity.

**A**

1 Which of these units would be best to use to measure the amount of water in a test tube?

- A Milliliters
- B Meters
- C Kilograms
- D Seconds

**Instruction:** Provide students an opportunity to determine an appropriate unit for a specific measurement of pictures and objects.

### Parent Tip A:

*Have your child explain what unit would be used to measure different objects and different dimensions of the objects (kilograms, meters, millimeters).*

# Science Test

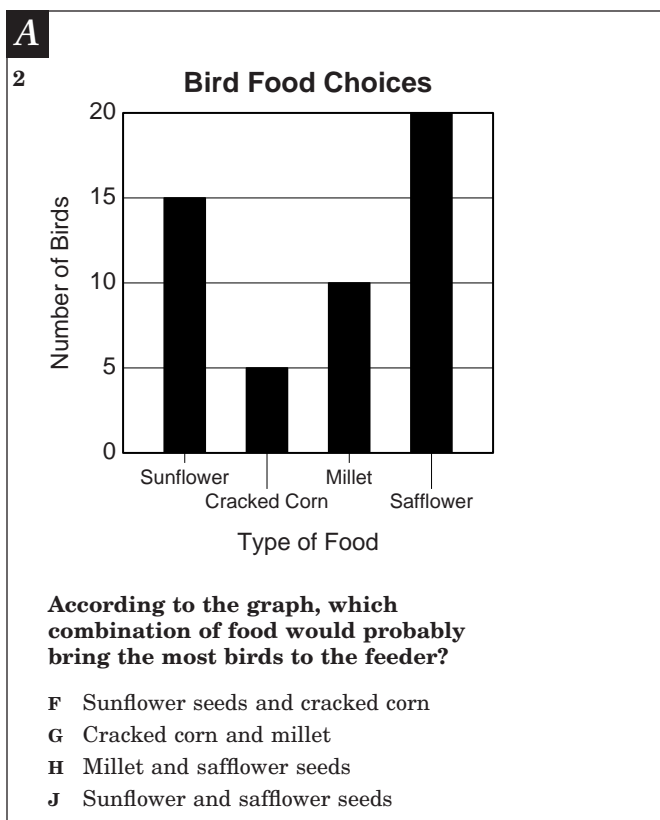
# 5

GRADE

**A. Standard of Learning:** 4.1 The student will plan and conduct investigations in which

e) predictions are made based on data from picture graphs, bar graphs, and basic line graphs.

**Builds To:** Work with predictions based on data continues in the study of science and increases in importance as experiments become more complex.



**Instruction:** Provide students an opportunity to analyze experimental data in a graph to make predictions.

## Parent Tip A:

*Have your child make predictions about a bar graph found in a newspaper or magazine.*



# Science Test

# 5

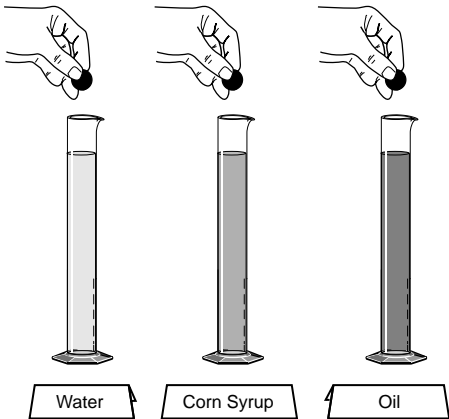
GRADE

**A. Standard of Learning:** 4.1 The student will plan and conduct investigations in which

g) variables that must be held constant in an experimental situation are defined.

**Builds To:** Work with variables continues in the study of science and increases in importance as experiments become more complex.

**A**  
3



Water      Corn Syrup      Oil

**A student uses the equipment shown above to study which liquid is the thickest. What information is the most appropriate to record?**

- A The height of each of the graduated cylinders
- B The time it takes for each marble to hit bottom
- C The size and mass of each of the marbles
- D The volume of each of the liquids in the cylinders

## Parent Tip A:

*Have your child set up, perform, and observe an experiment; and then decide on what information to record.*

**Instruction:** Provide students an opportunity to analyze an experiment to identify variables that should be recorded.

# Science Test

# 5

GRADE

**A. Standard of Learning: 4.1** The student will plan and conduct investigations in which

h) numerical data that are contradictory or unusual in experimental results are recognized.

**Builds To:** Work with collecting data continues throughout the study of science and mathematics and increases in complexity.

**A**

4

Trial	Temperature (°C)
A	41
B	40
C	31
D	42

Students conducted an experiment in which they rubbed their palms together to warm their hands, then measured the temperature of their hands. The experiment was conducted 4 times. According to the data in the table, which of these trials is most unusual?

- F A
- G B
- H C
- J D

**Instruction:** Provide students an opportunity to analyze data in a data table and determine if any of the data is very different from the majority of the data.

**B. Standard of Learning: 5.1** The student will plan and conduct investigations in which

a) appropriate instruments are selected and used for making quantitative observations of length, mass, volume, and elapsed time.

**Builds To:** Work with measurements and tools of measurement continues throughout the study of science and mathematics and increases in complexity.

**B**

5 Which of these is needed to measure the mass of a rock?

- A An anemometer
- B A barometer
- C A balance
- D A metric ruler

**Instruction:** Provide students an opportunity to select the appropriate tool for making accurate measures.

## Parent Tip A:

Have your child examine a data table found in a newspaper or magazine and identify any unusual data in the table.

## Parent Tip B:

Have your child identify measuring tools and appropriate measurements (such as mass, volume, length) that could be made using the tools.

# Science Test

# 5

GRADE

**A. Standard of Learning:** 5.1 The student will plan and conduct investigations in which

b) rocks, minerals, and organisms are identified using a classification key.

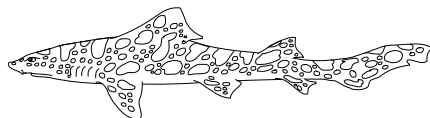
**Builds To:** Work with using a classification key continues throughout the study of science and increases in complexity.

**A**

6

## Classification Key

- |    |                                           |                  |
|----|-------------------------------------------|------------------|
| 1a | Body kite-like in shape . . . . .         | Ray              |
| 1b | Body not kite-like in shape . . . . .     | Go to 2          |
| 2a | Nose saw-like in shape . . . . .          | Swordfish        |
| 2b | Nose not saw-like in shape . . . . .      | Go to 3          |
| 3a | Head extended on both sides . . . . .     | Hammerhead shark |
| 3b | Head not extended on both sides . . . . . | Go to 4          |
| 4a | Body has spots . . . . .                  | Leopard shark    |
| 4b | Body does not have spots . . . . .        | Nurse shark      |



**Using the picture and classification key, what is this animal?**

- F Swordfish
- G Hammerhead shark
- H Leopard shark
- J Nurse shark

**Instruction:** Provide students an opportunity to identify an animal by using animal characteristics in a classification key.

## Parent Tip A:

*Have your child explain why certain choices are made when using a classification key.*

# Science Test

# 5

GRADE

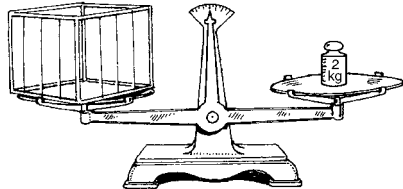
**A. Standard of Learning:** 5.1 The student will plan and conduct investigations in which

d) accurate measurements are made using basic tools (thermometer, meter stick, balance, graduated cylinder).

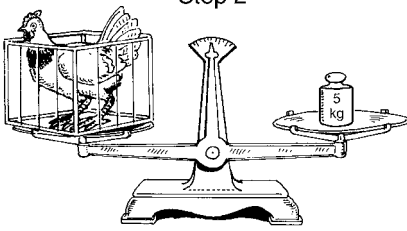
**Builds To:** Work with measurements and tools for measurement continues throughout the study of science and mathematics and increases in complexity.

**A**  
7

Step 1



Step 2



Amanda studied the mass gain in chickens for her science project. Which of these is the mass of this chicken?

- A 2 kg
- B 3 kg
- C 5 kg
- D 7 kg

## Parent Tip A:

Have your child add objects of known mass to the opposite end of a platform until it balances to determine the mass of an object.

**Instruction:** Provide students an opportunity to find the mass of an object in a box and mass of empty box to calculate the mass of the object.

# Science Test

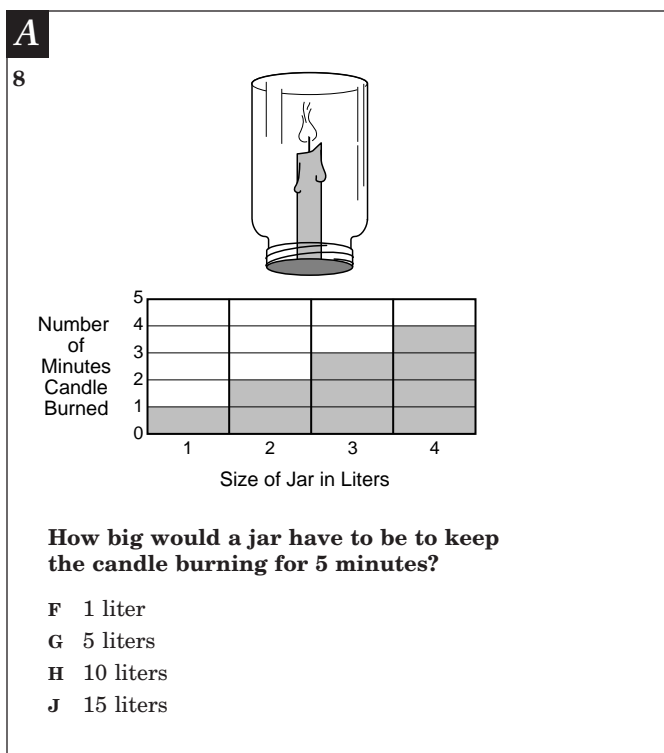
# 5

GRADE

**A. Standard of Learning:** 5.1 The student will plan and conduct investigations in which

e) predictions are made using patterns, and simple graphical data are extrapolated.

**Builds To:** Work with patterns and graphs continues through the study of science and mathematics and increases in complexity.



**Instruction:** Provide students an opportunity to analyze a bar graph and predict the height of the next bar if the graph is extended.

## Parent Tip A:

Have your child examine a bar graph found in a newspaper or magazine and analyze the relationship between the variables represented in the graph. Predict the size of the next bar if the graph is extended.

# Science Test

# 5

GRADE

**A. Standard of Learning:** 5.1 The student will plan and conduct investigations in which

f) estimations of length, mass, and volume are made.

**Builds To:** Work with estimation continues throughout the study of science and mathematics and increases in complexity.

**A**

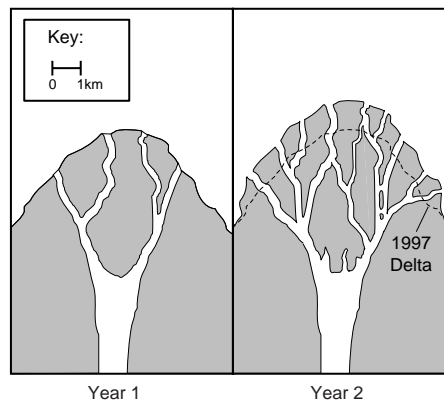
9



The picture shows a magnified view of a tick on a penny. About how long is the tick?

- A 1 millimeter
- B 2 kilometers
- C 4 meters
- D 10 centimeters

10



The picture shows the development of a delta over a two-year period. According to this information, about how far did the delta reach into the ocean after 1997?

- F 0.1 km
- G 0.5 km
- H 1 km
- J 1.5 km

## Parent Tip A:

Have your child estimate the height of an object when compared to his/her height.

**Instruction:** Provide students an opportunity to estimate the height of an object when given with a reference object.

# Science Test

# 5

GRADE

**Reporting Category:** Force, Motion, Energy, and Matter

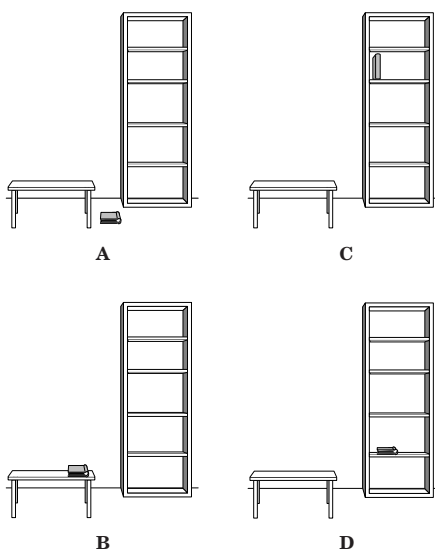
**A. Standard of Learning:** 4.2 The student will investigate and understand that energy is needed to do work and that machines make work easier. Key concepts include

b) potential and kinetic energy.

**Builds To:** Work with forms of energy continues throughout the study of science and increases in complexity.

**A**

**11 Which picture shows the book with the most potential energy?**



## Parent Tip A:

*Have your child place a book at different heights on a bookcase or shelves and identify the location where the book has the most potential energy.*

**Instruction:** Provide students an opportunity to identify relative amounts of potential energy which objects may possess.

# Science Test

# 5

GRADE

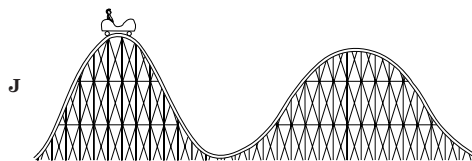
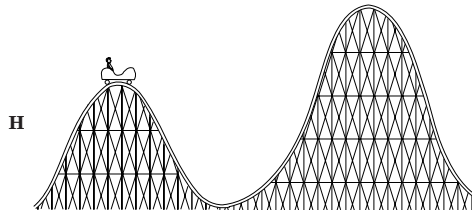
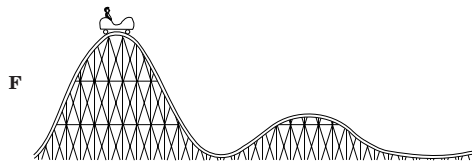
**A. Standard of Learning:** 4.2 The student will investigate and understand that energy is needed to do work and that machines make work easier. Key concepts include

b) potential and kinetic energy.

**Builds To:** Work with forms of energy continues throughout the study of science and increases in complexity.

**A**

- 12 Which roller coaster will not have enough kinetic energy at the bottom of the first hill to carry the car over the second hill?



**Instruction:** Provide students with an opportunity to demonstrate varying amounts of potential and kinetic energy.

## Parent Tip A:

Have your child roll a ball from different heights of an incline down onto a flat surface and then explain the reason the ball rolls different distances on the flat surface.



# Science Test

## 5 GRADE

**A. Standard of Learning:** 4.2 The student will investigate and understand that energy is needed to do work and that machines make work easier. Key concepts include

c) simple and complex machines.

**Builds To:** Work with energy and simple machines continues throughout the study of science, especially in physical science and physics.

**A**

13 A large rock and a long, thick board could be used to construct which simple machine?

- A Screw
- B Pulley
- C Wheel and axle
- D Lever

**Instruction:** Provide students an opportunity to investigate how different simple machines make work easier.

**B. Standard of Learning:** 4.3 The student will investigate and understand the characteristics of electricity. Key concepts include

b) circuits (open/closed, parallel/series).

**Builds To:** Work with electricity continues throughout the study of science, especially in physical science and physics.

**B**

14 Electric lights will not come on unless their electrical circuit is a —

- F parallel circuit
- G series circuit
- H closed circuit
- J short circuit

**Instruction:** Provide students an opportunity to investigate and build simple electric circuits.

### Parent Tip A:

*Have your child use a board and a large rock to construct a simple machine and name the type of machine constructed.*

### Parent Tip B:

*Have your child explain what happens when an electric light is turned on and off.*

# Science Test

# 5

GRADE

**A. Standard of Learning:** 4.3 The student will investigate and understand the characteristics of electricity. Key concepts include

c) magnetism and magnetic fields.

**Builds To:** Work with electricity continues throughout the study of science, especially in physical science and physics.

**A**

**15 Which of these can most easily produce magnetic fields?**

- A Sunlight
- B Wind
- C Electricity
- D Flowing water

**Instruction:** Provide students an opportunity to investigate magnetic fields.

**B. Standard of Learning:** 4.3 The student will investigate and understand the characteristics of electricity. Key concepts include

e) historical contributions in understanding electricity.

**Builds To:** Work with historical contributions continues throughout the study of most subjects and increases in complexity.

**B**

**16 Benjamin Franklin discovered the form of energy produced by lightning. Experiments with lightning killed many people before he discovered that lightning is a form of —**

- F gravity
- G water
- H magnetism
- J electricity

**Instruction:** Provide students an opportunity to investigate the discoveries of outstanding scientists.

## Parent Tip A:

*Have your child use a magnet and a metal to determine the area of attraction between the two objects. The area is the magnetic field. Explain that electricity can very easily produce magnetic fields as well.*

## Parent Tip B:

*Have your child discuss how Benjamin Franklin discovered that lightning is a form of electricity.*

# Science Test

## 5 GRADE

**A. Standard of Learning:** 5.2 The student will investigate and understand how sound is transmitted and is used as a means of communication. Key concepts include

b) the ability of different media (solids, liquids, gases) to transmit sound.

**Builds To:** Work with sound continues through the study of science and increases in complexity.

**A**

**17 Sound waves travel best through —**

- A gases
- B liquids
- C solids
- D vacuums

**Instruction:** Provide students an opportunity to investigate the capacity of various types of media to transport sound.

### *Parent Tip A:*

*Have your child listen to the sound produced when tapping on different objects containing different amounts of water.*

# Science Test

# 5

GRADE

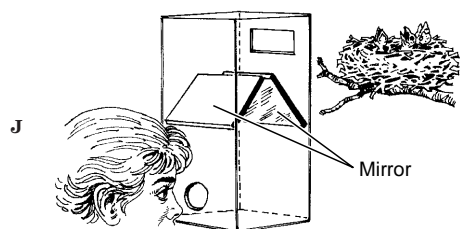
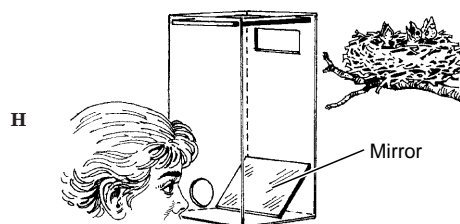
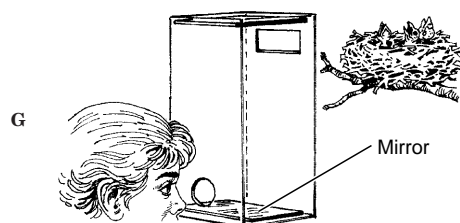
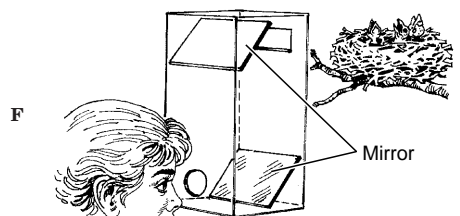
**A. Standard of Learning: 5.3** The student will investigate and understand basic characteristics of white light. Key concepts include

b) optical tools (eyeglasses, lenses, flashlight, camera, kaleidoscope, binoculars, microscope, light boxes, telescope, prism, spectroscope, mirrors).

**Builds To:** Work with optical tools continues throughout the study of science and increases in complexity.

**A**

- 18 A periscope works by using the reflection of mirrors. Tama made several periscopes for watching baby birds in a nest. Which periscope will work?



## Parent Tip A:

Have your child explain how mirrors can be used to reflect light in optical tools (periscope, microscope, or camera).

**Instruction:** Provide students an opportunity to investigate how mirrors must be placed in various optical tools to reflect light.

# Science Test

# 5

GRADE

**A. Standard of Learning:** 5.4 The student will investigate and understand that matter is anything that has mass; takes up space; and occurs as a solid, liquid, or gas. Key concepts include

c) effect of temperature on the states of matter.

**Builds To:** Work with the changes in the states of matter is used in more complex forms in Chemistry.

**A**

**19 Which of these will happen if the temperature of a metal pan is increased?**

- A The pan will begin to lose heat.
- B The molecules of the pan will move faster.
- C The metal will change into another metal.
- D The pan will contract.

**20 Oxygen, nitrogen, and carbon dioxide may be grouped together because at room temperature they are all a —**

- F solid
- G liquid
- H gas
- J colloid

**Instruction:** Provide students an opportunity to recognize states of matter for various materials at room temperature; and to understand that molecules of substances move faster when temperature increases.

## Parent Tip A:

*Have your child observe what happens as an ice cube melts and then explain that with the change of state, molecules move faster; and identify the state of matter for different gases, solids, and liquids.*

# Science Test

# 5

GRADE

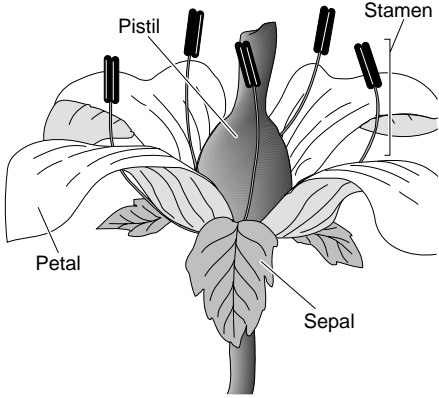
**Reporting Category:** Life Processes and Living Systems

**A. Standard of Learning:** 4.4 The student will investigate and understand basic plant anatomy and life processes. Key concepts include

b) processes and structures involved with reproduction (pollination, stamen, pistil, sepal, embryo, pore, and seed).

**Builds To:** Work with plants continues throughout the study of science and is used in more complex forms in Biology.

**A**  
21



**Which of these plant parts forms the seeds?**

- A The stamen
- B The pistil
- C The sepals
- D The petals

**Instruction:** Provide students an opportunity to investigate the function of the plant parts, especially the pistil.

## Parent Tip A:

*Have your child look at parts of a plant and then look at a labeled picture of a plant. Discuss the parts and their functions.*

# Science Test

# 5

GRADE

**A. Standard of Learning:** 4.4 The student will investigate and understand basic plant anatomy and life processes. Key concepts include

c) photosyntheses (chlorophyll, carbon dioxide).

**Builds To:** Work with plants continues throughout the study of science and is used in more complex forms in Biology.

**A**

22 Which of these is a process that allows plants to convert light energy into food energy?

- F Reproduction
- G Excretion
- H Digestion
- J Photosynthesis

23 The substance that makes plants green is known as —

- A water
- B calcium
- C chlorophyll
- D carbon dioxide

**Instruction:** Provide students an opportunity to investigate and understand the process of photosynthesis.

## Parent Tip A:

*Have your child grow two plants. Once they are about the same height, place one in a dark closet and the other in direct sunlight. Over a period of several weeks, have your child observe which plant appears to be more healthy. Discuss the process of photosynthesis.*

# Science Test

# 5

GRADE

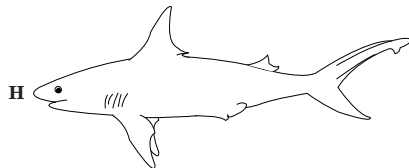
**A. Standard of Learning:** 4.5 The student will investigate and understand how plants and animals in an ecosystem interact with one another and the nonliving environment. Key concepts include

a) behavioral and structural adaptations.

**Builds To:** Work with ecosystems continues throughout the study of science and is used in more complex forms in Earth Science and Biology.

**A**

**24** Which of these fish has a mouth shape that best allows it to find food hidden in the cracks of rocks and coral?



**Instruction:** Provide students the opportunity to investigate structural adaptations that help animals find food in various locations.

## Parent Tip A:

Have your child identify animals and their structural adaptations to the environment, such as seals, with slick coats, polar bears' fur, or animals' mouth shapes.



# Science Test

# 5

GRADE

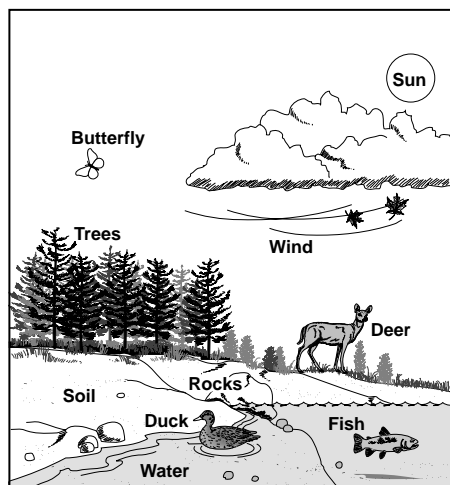
**A. Standard of Learning:** 4.5 The student will investigate and understand how plants and animals in an ecosystem interact with one another and the nonliving environment. Key concepts include

b) organization of communities.

**Builds To:** Work with ecosystems continues throughout the study of science and is used in more complex forms in Earth Science and Biology.

**A**

25



Which of the following *best* describes the living and non-living parts of the diagram above?

- A A niche
- B A community
- C An ecosystem
- D A biome

## Parent Tip A:

Have your child identify pictures of ecosystems and describe the living and non-living objects and organisms in the pictures.

**Instruction:** Provide students an opportunity to recognize pictures that represent ecosystems and communities.

# Science Test

# 5

GRADE

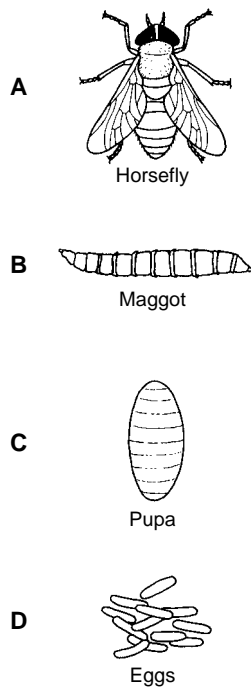
**A. Standard of Learning:** 4.5 The student will investigate and understand how plants and animals in an ecosystem interact with one another and the nonliving environment. Key concepts include

e) life cycles.

**Builds To:** Work with ecosystems continues throughout the study of science and is used in more complex forms in Earth Science and Biology.

**A**

26



**What is the correct order to show the complete life cycle of a horsefly?**

- F** D, B, C, A
- G** D, C, B, A
- H** A, D, C, B
- J** C, B, D, A

## Parent Tip A:

Have your child identify animals such as a horsefly and the stages in their life cycle. Rearrange the order of the stages and have your child place them in correct order.

**Instruction:** Provide students an opportunity to identify pictures of stages in the life cycle of some animals.

# Science Test

## 5 GRADE

**A. Standard of Learning: 4.5** The student will investigate and understand how plants and animals in an ecosystem interact with one another and the nonliving environment. Key concepts include

f) influence of human activity on ecosystems.

**Builds To:** Work with ecosystems continues throughout the study of science and is used in more complex forms in Earth Science and Biology.

**A**

**27** Today, which human activity is responsible for endangering the greatest number of land animal species?

- A Hunting for food and for sport
- B Destruction of habitats
- C Accidental starting of forest fires
- D Cutting wildflowers in national parks

**Instruction:** Provide students an opportunity to investigate the effects of human activity on plants and animals in ecosystems.

**B. Standard of Learning: 5.5** The student will investigate and understand that organisms are made of cells and have distinguishing characteristics. Key concepts include

a) parts of a cell.

**Builds To:** Work with cells continues throughout the study of science and is used in more complex forms in Biology.

**B**

**28** The internal parts of a cell are suspended in a jelly-like liquid called the —

- F nucleus
- G cell membrane
- H cytoplasm
- J chloroplasts

**Instruction:** Provide students an opportunity to investigate the parts of a cell and their characteristics.

### Parent Tip A:

*Have your child identify how animals can be affected by humans destroying their habitats.*

### Parent Tip B:

*Have your child identify the functions of cell parts after drawing a diagram of each part in a cell.*

# Science Test

# 5

GRADE

**A. Standard of Learning:** 5.5 The student will investigate and understand that organisms are made of cells and have distinguishing characteristics. Key concepts include

b) five kingdoms of living things.

**Builds To:** Work with the kingdoms of living things continues throughout the study of science and is used in more complex forms in Biology.

**A**

**29 Which of these belong to the kingdom Monera?**

- A Ferns
- B Mosses
- C Mushrooms
- D Bacteria

**Instruction:** Provide students an opportunity to investigate some common organisms of each kingdom.

**B. Standard of Learning:** 5.5 The student will investigate and understand that organisms are made of cells and have distinguishing characteristics. Key concepts include

d) vertebrates and invertebrates.

**Builds To:** Work with vertebrates and invertebrates continues throughout the study of science and is used in more complex forms in Biology.

**B**

**30 The jellyfish is an invertebrate because it lacks —**

- F eyes
- G bones
- H blood
- J cells

**Instruction:** Provide students an opportunity to investigate the characteristics of vertebrates and invertebrates.

## Parent Tip A:

*Have your child identify pictures of organisms that belong to each of the five kingdoms: monerans, protists, fungi, plants, and animals.*

## Parent Tip B:

*Have your child identify an invertebrate and describe the characteristics of vertebrates and invertebrates.*

# Science Test

# 5

GRADE

**Reporting Category:** Earth/Space Systems and Cycles

**A. Standard of Learning:** 4.6 The student will investigate and understand how weather conditions and phenomena occur and can be predicted. Key concepts include

a) weather factors (temperature, air pressure, fronts, formation and type of clouds and storms).

**Builds To:** Work with weather continues throughout the study of science and increases in complexity.

**A**

- |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>31 Which factor is usually recorded when gathering weather data?</p> <ul style="list-style-type: none"> <li>A Number of gases in the air</li> <li>B Temperature of the air</li> <li>C Type of gases in the air</li> <li>D Amount of air in an area</li> </ul> | <p>32 Tornadoes are most likely to be produced from which type of cloud?</p> <ul style="list-style-type: none"> <li>F Cirrus</li> <li>G Stratus</li> <li>H Cumulus</li> <li>J Cumulonimbus</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Instruction:** Provide students an opportunity to investigate different types of clouds; weather conditions associated with each type; and weather factors that are usually recorded.

**B. Standard of Learning:** 4.6 The student will investigate and understand how weather conditions and phenomena occur and can be predicted. Key concepts include

b) meteorological tools (barometer, hygrometer, anemometer, rain gauge, and thermometer).

**Builds To:** Work with weather continues throughout the study of science and increases in complexity.

**B**

- 33 Which instrument could tell you that conditions are right for flying a kite?
- A Anemometer
  - B Barometer
  - C Hygrometer
  - D Thermometer

**Instruction:** Provide students an opportunity to investigate the use of meteorological tools.

## Parent Tip A:

*Have your child identify a cloud in the sky, explain the type of weather produced from the type of cloud, and list the weather condition that is usually recorded.*

## Parent Tip B:

*Have your child observe an anemometer and explain what it measures.*

# Science Test

## 5 GRADE

**A. Standard of Learning:** 4.7 The student will investigate and understand the relationships among the Earth, moon, and sun. Key concepts include

a) the motions of the Earth, moon, and sun (revolution and rotation).

**Builds To:** Work with revolution and rotation continues throughout the study of science, especially in physical science, earth science, and physics.

**A**

**34 The moon revolves around —**

- F** itself
- G** the Earth
- H** the sun
- J** the solar system

**Instruction:** Provide students an opportunity to investigate the movements of the Earth and moon.

### *Parent Tip A:*

*Have your child demonstrate the movement of the moon around the Earth and name the type of motion.*

# Science Test

# 5

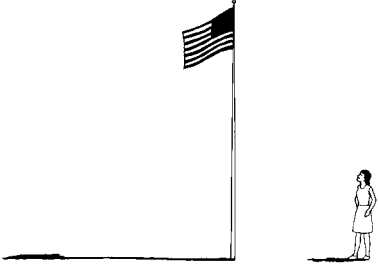
GRADE

**A. Standard of Learning:** 4.2 The student will investigate and understand that energy is needed to do work and that machines make work easier. Key concepts include

b) potential and kinetic energy.

**Builds To:** Work with the relationship of the Earth, moon, and sun continues throughout the study of science and increases in complexity.

**A**  
35



The girl above is looking at the flag early in the morning. The sun rises in the east. In which direction is she facing?

A North  
B East  
C South  
D West

**Instruction:** Provide students an opportunity to investigate the position of shadows relative to the position of the sun; and to understand directions relative to where the sun rises.

## Parent Tip A:

Have your child observe shadows at various times on a sunny day. Have your child identify the location of the sun relative to east or west at different times of the day.

# Science Test

# 5

GRADE


**A. Standard of Learning: 4.8** The student will investigate and understand important Virginia natural resources. Key concepts include

a) watershed and water resources.

**Builds To:** Work with natural resources continues throughout the study of science and increases in complexity.

**A**  
36

Virginia



Which of these towns is in the James River watershed?

F Amherst  
G Madison  
H King William  
J Littleton

**Instruction:** Provide students an opportunity to investigate the location of a river's watershed on a map.

## Parent Tip A:

Have your child look at maps of Virginia that show rivers and locate the watershed of the James River and other rivers.



# Science Test

# 5

GRADE

**A. Standard of Learning: 5.6** The student will investigate and understand characteristics of the ocean environment. Key concepts include

b) physical characteristics (depth, salinity, major currents).

**Builds To:** Work with the ocean environment continues throughout the study of science and increases in complexity.

**A**

**37** The salinity of the Mediterranean Sea is greater than that of the Atlantic Ocean. This means that, compared to the Atlantic Ocean, the Mediterranean Sea is —

- A wider
- B deeper
- C saltier
- D cooler

**Instruction:** Provide students an opportunity to understand the variations of salinity of ocean water.

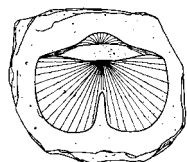
**B. Standard of Learning: 5.7** The student will investigate and understand how the Earth's surface is constantly changing. Key concepts include

b) Earth history and fossil evidence.

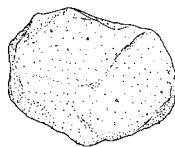
**Builds To:** Work with the Earth's surface continues through the study of science and is used in more complex forms in Earth Science.

**B**

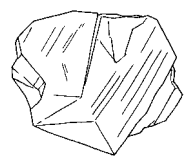
**38** Rocks which formed in areas once covered by oceans often contain fossils of animals which lived in the sea. Which one of these rocks contains fossils of ocean animals?



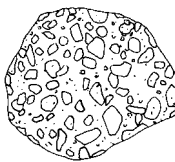
F



H



G



J

**Instruction:** Provide students an opportunity to examine rocks containing fossils of ocean animals.

## Parent Tip A:

Have your child taste salty water to determine which glass of water has the greater salinity when different amounts of table salt have been added to each glass.

## Parent Tip B:

Have your child examine rocks or pictures of rocks and identify fossils of ocean animals if they are present.

# Science Test

## 5 GRADE

**A. Standard of Learning:** 5.7 The student will investigate and understand how the Earth's surface is constantly changing. Key concepts include

d) plate tectonics (earthquakes and volcanoes).

**Builds To:** Work with the Earth's surface continues through the study of science and is used in more complex forms in Earth Science.

**A**

**39 Which surface feature is most likely caused by the movement of the Earth's crustal plates?**

- A Canyons
- B Deltas
- C Lakes
- D Volcanoes

**Instruction:** Provide students an opportunity to explain the effect of movement within the Earth's surface.

### *Parent Tip A:*

*Have your child explain volcanoes and the effect they have on the Earth's surface.*

# Science Test

# 5

GRADE

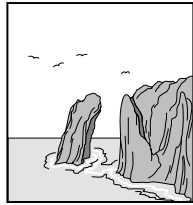
**A. Standard of Learning: 5.7** The student will investigate and understand how the Earth's surface is constantly changing. Key concepts include

e) weathering and erosion.

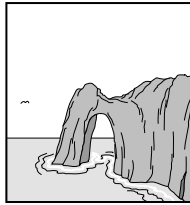
**Builds To:** Work with the Earth's surface continues through the study of science and is used in more complex forms in Earth Science.

**A**

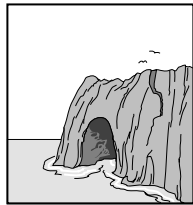
40



**A**



**C**



**B**



**D**

Wave action against solid rock can cause changes in the rock structure. What is the correct sequence of erosion of the above rock surface?

- F A,B,C,D
- G D,B,C,A
- H B,C,D,A
- J C,D,B,A

## Parent Tip A:

*Have your child explain how different areas around your dwelling have been affected by weathering and/or erosion*

**Instruction:** Provide students with an opportunity to investigate diagrams to identify the sequence of changes in the Earth's surface.

# Computer/Technology Test

**Reporting Category:** Basic Understanding of Computer/Technology

**Standard of Learning:** 5.1 The student will demonstrate a basic understanding of computer theory, including bits, bytes, and binary logic.

**Builds To:** Work with bits and bytes continues throughout the study of Computer/Technology.

**A**

- |                                                                                                                                                                                                                        |                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1 Information can be stored on all of the following <i>except</i> —</b></p> <ul style="list-style-type: none"> <li>A a diskette</li> <li>B the keyboard</li> <li>C a CD-ROM</li> <li>D the hard drive</li> </ul> | <p><b>2 The binary system is a system that uses the digits —</b></p> <ul style="list-style-type: none"> <li>F 0 and 1</li> <li>G 1 and 2</li> <li>H 9 and 0</li> <li>J 5 and 6</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Instruction:** Provide students an opportunity to examine different types of storage media; and to examine the use of binary logic.

## Parent Tip A:

*Have your child identify the capacity for a floppy disk at home or in a store; review the definition of the binary system.*

# Computer/Technology Test

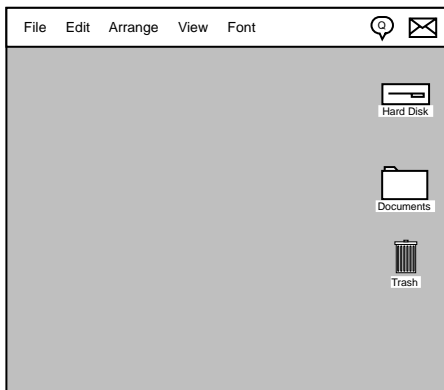
**Standard of Learning:** 5.2 The student will develop basic technology skills.

a) Develop a basic technology vocabulary that includes cursor, software, memory, disk drive, hard drive, and CD-ROM.

**Builds To:** Work with different functions of the computer continues throughout the study of Computer/Technology.

**A**

3



4 An arrow that is controlled by the mouse and lets the user select items without using the keyboard is called a —

- F chip
- G CPU
- H pointer
- J byte

The small pictures shown on the desktop above are called —

- A icons
- B logos
- C models
- D symbols

## Parent Tip A:

*Have your child identify elements of the computer as he/she works with it at home.*

**Instruction:** Provide students an opportunity to identify what icons are; and provide an opportunity to identify what a pointer is.

# Computer/Technology Test

# 5

GRADE

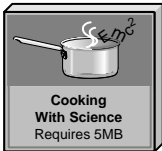
**Standard of Learning:** 5.3. The student will process, store, retrieve, and transmit electronic information.

d) Describe advantages and disadvantages of various computer processing, storage, retrieval, and transmission techniques.

**Builds To:** Work with retrieval of information continues throughout the study of Computer/Technology.


**A**

5 The computer in Chen's classroom has only 4 MB of memory. Which software program would be able to run on this computer?




**Cooking With Science**  
Requires 5MB

**A**




**Mathman - A Learning Game**  
Requires 3MB

**C**



**World Map Series 2000**  
Requires 10MB

**B**



**Space Alien Spelling**  
Requires 8MB

**D**

**Instruction:** Provide students an opportunity to determine how much memory is required to run an application.

**Reporting Category:** Basic Operational Skills

**Standard of Learning:** 5.2. The student will develop basic technology skills.

b) Select and use technology appropriate to tasks.

**Builds To:** Work with computer applications and creating projects continues throughout the study of Computer/Technology.

**B**

6 To find information about the War of 1812, your *best* electronic resource would be —

**F** an almanac  
**G** a dictionary  
**H** a thesaurus  
**J** an encyclopedia

**Instruction:** Provide students an opportunity to select the most appropriate electronic application for a given task.

## Parent Tip A:

*Have your child determine which application will run on computers at home or in a store based on required memory.*

## Parent Tip B:

*Have your child plan and conduct a search using the most appropriate electronic media.*

# Computer/Technology Test

**Standard of Learning:** 5.2. The student will develop basic technology skills.

b) Select and use technology appropriate to tasks.

**Builds To:** Work with computer applications and creating projects continues throughout the study of Computer/Technology.

**A**

7 Which one of the following devices could be used to place a photograph into a document?

- A Modem
- B Monitor
- C Printer
- D Scanner

8 Which of the following is used to explore the Internet?

- F Browser
- G Spreadsheet
- H Clipboard
- J Draw

**Instruction:** Provide students an opportunity to select the most appropriate technology for a given task.

## Parent Tip A:

*Have your child plan and conduct a search using the most appropriate electronic media.*

**Standard of Learning:** 5.2. The student will develop basic technology skills.

d) Operate peripheral devices.

**Builds To:** Work with the peripheral devices of the computer, such as the speakers, continues throughout the study of Computer/Technology.

**B**

9 Nan is on a field trip and she wants to bring back pictures to put into a report. She could use all of the following *except* —

- A a digital camera
- B a video camera
- C postcards to scan
- D an audiocassette

10 A printer is needed to —

- F create hard copies of documents
- G save and edit many document files
- H load educational software
- J install document files

**Instruction:** Provide students an opportunity to use peripheral devices with computers.

## Parent Tip B:

*Have your child identify printers and digital cameras at home or in a store.*

# Computer/Technology Test

**Standard of Learning:** 5.3. The student will process, store, retrieve, and transmit electronic information.

a) Use search strategies to retrieve electronic information using databases, CD-ROMs, videodiscs, and telecommunications.

**Builds To:** Work with search strategies continues throughout the study of Computer/Technology.

**A**

11 Elise is looking in an electronic encyclopedia for information about the World Cup soccer tournament. Which would be the *best* keyword(s) for her to enter?

- A Soccer
- B Soccer tournament
- C Sports
- D World Cup soccer

12 A *keyword* is the —

- F main search word
- G word used to get rid of results
- H name of a search engine
- J style of the search word

**Instruction:** Provide students an opportunity to set up a search for information in an electronic encyclopedia; and by using a search engine.

## Parent Tip A:

*Have your child write down the words he/she would use for a specific search on the Internet.*



## Computer/Technology Test

**Standard of Learning:** 5.3. The student will process, store, retrieve, and transmit electronic information.

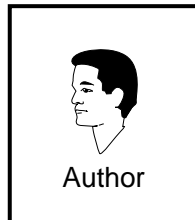
b) Use electronic encyclopedias, almanacs, indexes, and catalogs.

**Builds To:** Work with electronic catalogs continues throughout the study of Computer/Technology.

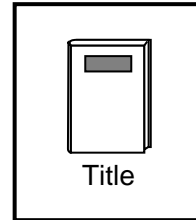
**A**

- 13 Chad's electronic atlas would be most helpful to find —
- 14 Ben wants to look up the name of a book in the library's electronic catalog. Which kind of search should he do?

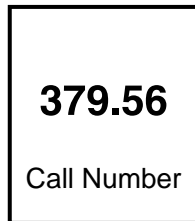
- A the location of Lake Michigan  
B how a battery works  
C a list of the United States Presidents  
D how long grizzly bears hibernate



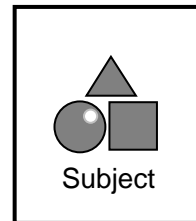
F



H



G



J

**Parent Tip A:**

*Have your child use the electronic catalog at the library to find information by author and by subject.*

**Instruction:** Provide students an opportunity to access information through an electronic library catalog.

# Computer/Technology Test

# 5

GRADE

**Standard of Learning:** 5.3. The student will process, store, retrieve, and transmit electronic information.

b) Use electronic encyclopedias, almanacs, indexes, and catalogs.

**Builds To:** Work with electronic catalogs continues throughout the study of Computer/Technology.

**A**

15 **Melanie is using an electronic index to find information about Mark McGwire's home run record. Under which of the following would she find the *best* information?**

- A Mark
- B McGwire
- C home run
- D baseball

**Instruction:** Provide students an opportunity to access information through an electronic index.

## Parent Tip A:

*Have your child use the electronic catalog at the library to find information by author and by subject.*

**Standard of Learning:** 5.3. The student will process, store, retrieve, and transmit electronic information.

c) Use local and wide-area networks and modem-delivered services to access information from electronic databases.

**Builds To:** Work with accessing information through the wide-area network continues throughout the study of Computer/Technology.

**B**

16 **The Internet is a system of computers all over the world that are linked to one another. This type of system is considered —**

- F an electronic database
- G a local area network (LAN)
- H a stand alone system
- J a wide area network (WAN)

17 **Mrs. Kwan's class is participating in an Internet project with another school. To write to the other school online, they need —**

- A a keyword
- B e-mail
- C a search engine
- D a scanner

**Instruction:** Provide students an opportunity to access information on a WAN; and to exchange information using a WAN.

## Parent Tip B:

*Have your child use a wide-area network and e-mail at home or at the library.*

# Computer/Technology Test

**Standard of Learning:** 5.4. The student will communicate through application software.

a) Create a 1–2 page document using word processing skills, writing process steps, and publishing programs.

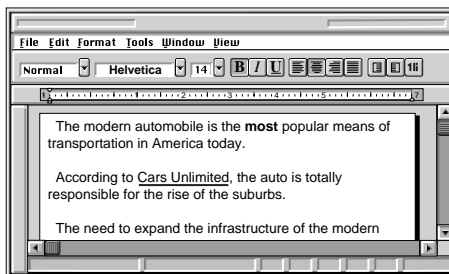
**Builds To:** Work with word processing skills continues throughout the study of Computer/Technology.

**A**

18 Laura is in the process of editing her fantasy story. What does she need to click on in the “File” menu to find her saved story?

- F New
- G Open
- H Save
- J Save As

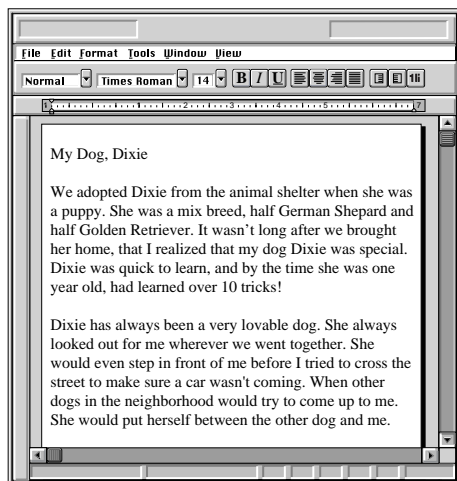
20



Which tool will allow Robert to move his word processing document around so he can view different sections?

- F Alignment
- G Scroll bar
- H Spell check
- J Undo

19



Which of the following commands will move the title to the middle of the line?

- A Center
- B Edit
- C Justify
- D Paste

## Parent Tip A:

*Have your child write a document on the computer, move text within the document, and move the document using the scroll bar.*

**Instruction:** Provide students an opportunity to move text within a document; use a pull-down menu to find a saved document; and select a tool to move a document around.

# Computer/Technology Test

**Reporting Category:** Using Technology to Solve Problems

**Standard of Learning:** 5.2. The student will develop basic technology skills.

e) Apply technologies to strategies for problem solving and critical thinking.

**Builds To:** Work with using technology to assist in problem solving continues throughout the study of Computer/Technology.

A

21

Rainfall	
Jan 1.25"	Jul 1.40"
Feb 2.10"	Aug 3.20"
Mar 1.10"	Sep 2.25"
Apr .50"	Oct 1.50"
May .25"	Nov 2.40"
Jun 2.30"	Dec 1.80"

**What tool is capable of calculating monthly rainfall amounts and creating graphs based on that data?**

- A Clip art
- B Graphics
- C Spreadsheet
- D Word processor

**22** Fidela wants to combine a picture of a starfish with the short story she wrote about her visit to the beach. Which of the following is the *best* program to do this?

- F Database
- G Spreadsheet
- H Word processing
- J Calendar program

**23** Which of these websites would *most likely* give instructions on how to make a kite?

- A Sun & Breeze - Wind conditions for kite flying
- B Sandy's Kite Page - Pictures of my kite flying competition
- C Tony's Kite Page - Kite building, images and events
- D Kitesurfing - Tricks to do with your kite

## Parent Tip A:

Have your child determine which application is the most appropriate for a given task such as adding or subtracting numbers, making graphs, adding art to a document or finding information.

**Instruction:** Provide students with problem situations, such as finding information about a new location or information for a current events project; and have them determine how to use technology to assist them.

# Computer/Technology Test

**Standard of Learning:** 5.4. The student will communicate through application software.

b) Use simple computer graphics and integrate graphics into word-processed documents.

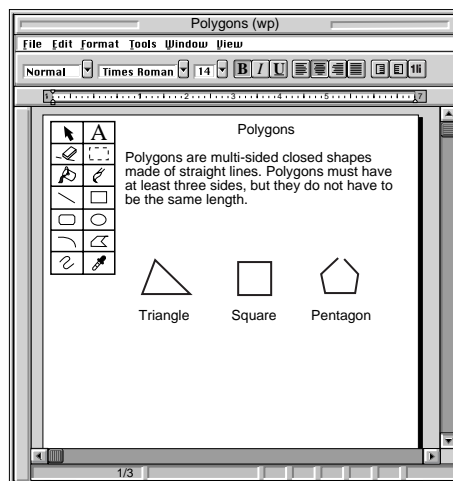
**Builds To:** Work with graphics continues throughout the study of Computer/Technology.

A

24 Which of the following is the *best* definition of the Rotate command?

- F It moves the graphic across the document page.
- G It resizes parts of the graphic.
- H It turns the graphic to the right or left.
- J It sets the graphic to the right margin.

25



Joshua used the drawing tools to create a pentagon in his math project. When he tried to fill the shape with blue, both the shape and the document changed color. This happened because —

- A there were too many shapes
- B the paint brush was outside the shape
- C the shape was the wrong size
- D there was a break in the shape

## Parent Tip A:

*Have your child demonstrate how to work with graphics in word processing.*

**Instruction:** Provide students an opportunity to fill an object with color, tilt a graphic, and insert text under a graphic.

# Computer/Technology Test

**Standard of Learning:** 5.4. The student will communicate through application software.

c) Create simple databases and spreadsheets to manage information and create reports.

**Builds To:** Work with databases and spreadsheets continues throughout the study of Computer/Technology.

A

26

Restaurant Cost Comparison					
	A	B	C	D	E
1					
2		Hamburger	Fries	Soft Drink	
3	Restaurant A	\$ 2.69	\$ 0.79	\$ 1.25	
4	Restaurant B	\$ 2.35	\$ 0.79	\$ 1.45	
5	Restaurant C	\$ 1.99	\$ 0.89	\$ 0.99	
6	Restaurant D	\$ 3.25	\$ 1.25	\$ 1.69	
7	Total	\$ 10.28	\$ 3.72	\$ 5.38	
8					

Mike wants to calculate the total cost of a hamburger, fries, and soft drink for Restaurant C. In which cell should he place the sum?

- F D5
- G E5
- H D7
- J E8

28

Database				
File Edit Format Tools Window View				
Book Reviews (DB)				
Book Title	Dirt Bike Racer			
Author	Christopher, Matt			
Critic	Daniel			
Review	Awesome			
Rating	5			
Book Title	Charlottes Web			
Author	White, E.B.			
Critic	Elizabeth			
Review	Good Book			
Rating	3			
Book Title	Bridge to Terabithia			
Author	Paterson, Katherine			
Critic	Scott			
Review	Ok Book			
Rating	2			
Book Title	Dear Mr. Henshaw			
Author	Cleary, Beverly			
Critic	Suzanne			
Review	Great Read!			
Rating	4			

Record: 1 2 3 4 5

27 Jack is going to create a database. What would be his *first* step?

- A Open a new database document and define the fields
- B Open a new database document within another document
- C Enter data in the new records
- D Enter values into the fields

How many records are in this database?

- F 4
- G 5
- H 20
- J 25

## Parent Tip A:

Have your child explain what a database can be used for and how calculations can be made with a spreadsheet. Have your child set up a database and spreadsheet, and perform simple calculations on the spreadsheet.

**Instruction:** Provide students an opportunity to work with a simple database; and to perform calculations in a spreadsheet.

# Computer/Technology Test

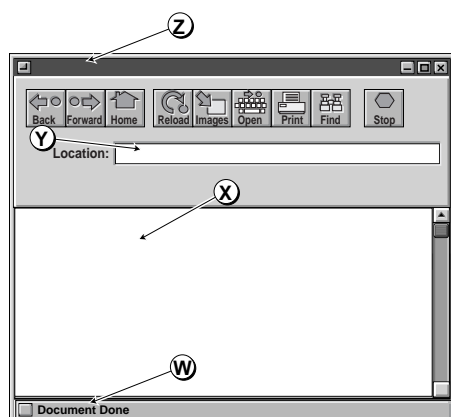
**Standard of Learning:** 5.4. The student will communicate through application software.

d) Use local and worldwide network communication systems.

**Builds To:** Work with the worldwide network continues throughout the study of Computer/Technology.

A

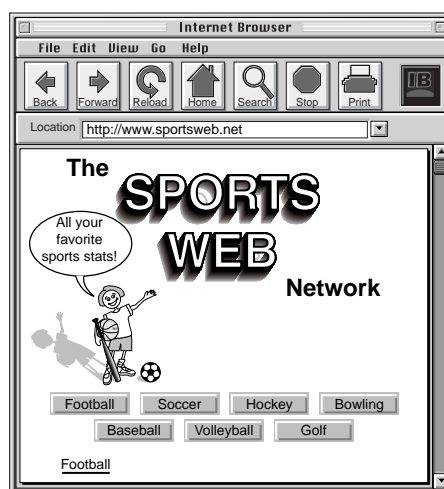
29



To see if a website has finished downloading, where should Joey look?

- A W
- B X
- C Y
- D Z

30



At his favorite sports website, Charles wants to go directly to the section on hockey. Which option should he choose?

- F Scroll down the page
- G Use a search engine
- H Select the hockey link
- J Print the site

## Parent Tip A:

Have your child discuss the use of the Internet for gathering information.

**Instruction:** Provide students an opportunity to use a browser; and select a link.

# Correct Answers

## 5 GRADE

### ENGLISH: *Reading/Literature and Research Test*

1. D 2. J 3. A 4. J 5. A 6. G 7. C 8. F 9. A 10. H  
11. B 12. F 13. B 14. J 15. B 16. H 17. D 18. F 19. B 20. H  
21. A 22. G 23. D 24. H 25. C 26. H 27. D 28. J 29. B  
30. H 31. D 32. G 33. B 34. J 35. D 36. G 37. B 38. H  
39. B 40. F 41. A 42. J

### ENGLISH: *Writing Test*

1. B 2. J 3. D 4. F 5. B 6. J 7. A 8. J 9. C 10. H 11. C  
12. G 13. D 14. G 15. A 16. J 17. B 18. F 19. C 20. J

### MATHEMATICS TEST

1. D 2. H 3. B 4. G 5. A 6. H 7. C 8. H 9. D 10. G  
11. C 12. H 13. B 14. J 15. D 16. J 17. B 18. F 19. D  
20. H 21. A 22. G 23. B 24. J 25. D 26. H 27. D 28. J  
29. C 30. H 31. A 32. J 33. B 34. H 35. B 36. H 37. D  
38. J 39. D 40. H 41. D 42. G 43. B 44. H 45. C 46. H  
47. A 48. J 49. D 50. G

### SCIENCE TEST

1. A 2. J 3. B 4. H 5. C 6. H 7. B 8. G 9. A 10. H  
11. C 12. H 13. D 14. H 15. C 16. J 17. C 18. F 19. B  
20. H 21. B 22. J 23. C 24. F 25. C 26. F 27. B 28. H  
29. D 30. G 31. B 32. J 33. A 34. G 35. D 36. F 37. C  
38. F 39. D 40. G

### COMPUTER/TECHNOLOGY TEST

1. B 2. F 3. A 4. H 5. C 6. J 7. D 8. F 9. D 10. F  
11. D 12. F 13. A 14. H 15. B 16. J 17. B 18. G 19. A  
20. G 21. C 22. H 23. C 24. H 25. D 26. G 27. A 28. F  
29. A 30. H